

HAWAIIAN

ANNUAL

1909

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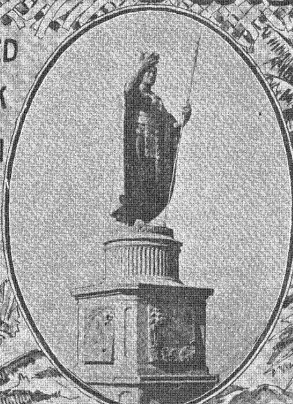
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THE HAWAIIAN ANNUAL

THE
RECOGNIZED
BOOK
OF
INFORMATION
ABOUT
HAWAII

1909



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RESOURCES	- - -	\$5,870,706.80
LIABILITIES	- - -	3,339,868.19
NET SURPLUS	- - -	2,530,838.61

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Almanac and Annual

FOR

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RELATING TO THE TERRITORY OF HAWAII, OF VALUE TO
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Thirty-Fifth Year of Publication

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HONOLULU:

1908

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1909

Counting House Calendar

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
JAN.	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
FEB.		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28						
MAR.		1	2	3	4	5	6
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APR.		4	5	6	7	8	9
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							1
MAY	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					
JUNE			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30			

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	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
JULY							
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
AUG.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
SEPT.							
	5	6	7	8	9	10	11
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	19	20	21	22	23	24	25
	26	27	28	29	30		
OCT.							
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	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
NOV.							
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30				
DEC.							
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	



TABLE OF CONTENTS.

CALENDARS, DISTANCES, ETC.

	PAGE
Holidays, Church Days, Eclipses, etc.....	6
Calendars—First, Second, Third and Fourth Quarters.....	7— 10
Inter-Island Distances, by Sea; Channel and Ocean Distances..	11
Overland Distances: Oahu, Kauai	12
“ “ Maui, Hawaii, Molokai	13— 15
Elevations of Principal Locations Throughout the Islands.....	15— 16

STATISTICAL.

Area, Elevation and Population Hawaiian Islands.....	16
Dimensions of Kilauea, Mokuaweoweo, Haleakala, Iao Valley..	17
Standard and Local Time	17
Latest Census Hawaiian Islands, and Comparative 1872-1900....	18
Foreign-Born Population of Hawaii; Native-Born	19
Comparative Table of Population Hawaiian Islands, 1853-1900..	19
School Statistics, Territory of Hawaii, 1907-8.....	20
Church Statistics, Vital Statistics, 1908.....	21
Table of Births and Deaths by Nationalities and Countries.....	21
Import Value from U. S., Domestic and Foreign Mdse., 1908....	22— 23
Value of Shipments to the United States from Hawaii for Years 1907 and 1908.....	24
Hawaii's Commerce with Foreign Countries, 1907 and 1908....	25
Exports and Imports, 1908.....	25
Quantity and Value Domestic Products Exported, 1908.....	26
Comparative Table of Importations from Japan, 1902-06.....	26
Hawaiian Sugar Plantation Statistics; Nationality Plantn Labor.	27
Hawaii's Annual Trade Balance, from 1880.....	28
Summary of Insurance Business, Hawaii, 1907.....	28
Receipts, Expenditures and Public Debt of Hawaii, from 1856..	29
Bonded Debt, June 30, 1908.....	29
Internal Taxes, Biennial Periods and Annual.....	30
Summary of Meteorological Observations, Honolulu, 1907-1908.	31
Table of Rainfall, Principal Stations, Hawaiian Islands, 1907-8..	32— 33
Table of Annual License Fees.....	34
Seating Capacity of Principal Churches and Halls.....	34
Notable Trips Pacific Ocean Steamers, and Clipper Passages....	35
Record Trips between Hawaiian and Distant Ports.....	36— 37

	PAGE
Some Noted Inter-Island Trips	37
Arrival and Departure of Aliens, Honolulu, 1908.....	37
Estimated Japanese Population, June 30, 1908.....	37
Hawaiian Sugar Crops, 1903-1908.....	185-186

ARTICLES.

Heiaus and Heiau Sites Throughout the Hawaiian Islands....	38-42
Tales from the Temples with plans.....	44-54
Customs Table Review, 1908.....	54-57
The Pineapple Industry in Hawaii.....	58-82
Streets of Honolulu in the Early Forties.....	83-91
Excursion to the Mountains of Maui.....	92-97
Another Alii Gone	97
Legend of Paalua and Kawelu	98-105
Printing Press of the Mission under Mr. Loomis.....	106-115
Reunion of Bethelites	116-118
Honolulu and its Suburbs in the Latter Forties.....	118-128
A Chapter of Firstlings	128-140
Kilauea in September, 1908.....	140-144
The Growth of Greatness	144-145
A Visitor's Impressions of Hawaii.....	146
Notable Visitors during 1908.....	147-149
Reviving Interest in Cotton Growing.....	149-152
Journal of Stephen Reynolds	153-159
The McKinley High School	159-162
Reprinting Dibble's History	162
Retrospect for 1908.....	163-182
Hawaiian Folk Tales	184

REFERENCE.

List of Sugar Plantations, Mills and Agencies.....	183-184
Postal Service, Territory of Hawaii.....	187-188
Reference List of Principal Articles in the Hawaiian Annuals, 1875 to 1908.....	189-197
Register and Directory, Territory Officials, etc.....	198-210
County Officials	210-211
Federal Officials	211-212
Index	213-214

INDEX TO ADVERTISERS.

PAGE	PAGE
Am.-Hawn. S. S. Co..... 7	Irwin & Co., Sugar Factors..... 8
Am.-Hawn. Paper & Supply Co.. 17	Kilauea Volcano 12
Associated Garage 13	Lewers & Cooke, Ltd., Lumber..
Audit Co. of Hawaii..... 3	..... (on back)
Alexander & Baldwin, Sugar	Lond. Liverp'l & Globe Ins. Co... 5
Factors 2	
Allen & Robinson, Lumber, Etc.. 11	
Bank of Hawaii, Limited..... 14	Manufacturers Shoe Co..... 24
Benson, Smith & Co., Druggists.. 1	May & Co., Grocers, Etc..... 15
Bergstrom Music Co., Pianos,	McInerny, M., Gents' F'rni'h'g.. 18
Etc..... 18	Mercantile Printing Co..... 19
Bishop & Co., Bankers..... 3	Metropolitan Meat Co..... 23
Bishop Trust Co..... 3	Morgan, J. F., Auct'r & Com.... 19
Brewer & Co., Shipping & Com... 11	
Castle & Cooke, Shipping & Com. 10	New Jersey School-Ch. Furn. Co. 25
Catton, Neill & Co., Machinists... 24	North Brit. & Mercantile Ins. Co. 5
Chambers Drug Co., Ltd..... 22	Oahu Railway & Land Co.....
Davies & Co., Theo. H., Imptrs	.....2nd page cover
& Com..... 15	Oat & Mossman, Stationers..... 18
Dayton, David, Real Estate, Etc.. 19	Schaefer & Co., Ltd., F. A., Im-
Dimond & Co., W. W..... 3d cover	porters & Com..... 11
Dowsett, J. M., Fire Insurance... 23	Spreckels & Co., Bankers..... 9
Ehlers & Co., Dry Goods, Etc.... 22	Sun Insurance Office of London.. 5
Fernandez & Son, A., Hardware.. 17	Tannery Dept., Metro. Meat Co.. 23
Fidelity & Deposit Co. of Md.... 4	Thames & Mersey, Marine Ins. Co. 4
Firemen's Fund Ins. Company... 4	Thrum, Thos. G., Publications... 20
First Ntnl Bank of Hawaii. 3rd cover	Thrum, Thos. G., Stationery,
Hackfeld & Co., Ship'g & Com... 6	Bookseller, Etc.....last cover
Hall & Son, E. O., Hardware,	Von Hamm-Young Co., Imptrs... 24
Etc..... 13	Waterhouse Co., The..... 26
Hawaiian Fertilizer Co..... 22	Waterhouse Trust Co., Henry.... 12
Hawaiian Gazette Co., Printers.. 21	Williams, Dimond & Co., Ship'g
Hawaiian Trust Co..... 14	and Com..... 7
Hollister Drug Co..... 17	Yokohama Specie Bank..... 26
Honolulu Constrn. & Drayage Co. 25	
Honolulu Iron Works Co..... 16	
Hustace-Peck Co., Draymen..... 19	

HAWAIIAN ANNUAL CALENDAR FOR 1909.

Second half of the eleventh year and first half of the twelfth year since annexation of Hawaii with the United States.

Sixteenth year since the downfall of the Monarchy.

The 131st year since the discovery of the Hawaiian Islands by Captain Cook.

Holidays Observed at the Hawaiian Islands.

*New Year	Jan. 1	*Labor Day (First Monday)	Sept. 6
Chinese New Year	Jan. 21	*Regatta Day (Third Saturday)	Sept. 18
*Washington's Birthday	Feb. 22	Thanksgiving Day	Nov. 25
Good Friday	April 9	Recognition of Hawaiian Independence	Nov. 28
*Decoration Day	May 30	*Christmas	Dec. 25
*Kamehameha Day	June 11		
*Birthday Hawn. Republic	July 4		
*American Anniversary	July 4		

Those distinguished by an Asterisk have been established by law.

Chronological Cycles.

Dominical Letter	C	Solar Cycle	14
Epact	8	Roman Indiction	7
Golden Number	10	Julian Period	6622

Church Days.

Epiphany	Jan. 6	Whit Sunday	May 30
Ash Wednesday	Feb. 24	Trinity Sunday	June 6
First Sunday in Lent	Feb. 28	Corpus Christi	June 10
Good Friday	April 9	Advent Sunday	Nov. 28
Easter Sunday	April 11	Christmas	Dec. 25
Ascension Day	May 20		

Eclipses in 1909.

In the year 1909 there will be four eclipses, two of the Sun, and two of the Moon.

I—Total eclipse of the Moon, June 3rd, not visible here.

II—Total eclipse of the Sun, June 17th, invisible here.

III—Total eclipse of the Moon, Nov. 26th, visible at these islands; occurring at Honolulu as follows:

Enters shadow 8.41.0 p. m.	Eclipse ends 11.05.6 p. m.
Eclipse begins 9.43.6 p. m.	Leaves shadow 0.08.2 a. m. of 27th.
Middle of eclipse 10.24.6 p. m.	

IV—Partial eclipse of the Sun, Dec. 12th, not visible at these islands.

FIRST QUARTER, 1909.

JANUARY.						FEBRUARY						MARCH					
D.		H. M.				D.		H. M.				D.		H. M.			
6	Full Moon...	3	42.7	a.m.		4	Full Moon...	9	54.9	p.m.		6	Full Moon...	3	25.8	p.m.	
14	Last Quar...	7	41.3	a.m.		13	Last Quar...	2	16.9	a.m.		14	Last Quar...	5	11.7	p.m.	
21	New Moon...	1	41.8	p.m.		20	New Moon...	0	22.1	a.m.		21	New Moon...	9	41.3	a.m.	
28	First Quar...	4	37.4	a.m.		26	First Quar...	4	19.1	p.m.		28	First Quar...	6	18.7	a.m.	
Day of Mo.	Day of Wk.	Sun Rises...		Sun Sets...		Day of Mo.	Day of Wk.	Sun Rises...		Sun Sets...		Day of Mo.	Day of Wk.	Sun Rises...		Sun Sets...	
		H.M.	H.M.					H.M.	H.M.					H.M.	H.M.		
1	Fri....	6 37	9 5	29	5	1	Mon..	6 37	6 5	50	2	1	Mon..	6 20	9 6	4	3
2	Sat...	6 38	2 5	30	3	2	Tues..	6 37	2 5	50	8	2	Tues..	6 20	1 6	4	7
3	SUN...	6 38	5 5	30	9	3	Wed...	6 36	9 5	51	4	3	Wed...	6 19	3 6	5	1
4	Mon..	6 38	8 5	31	6	4	Thurs.	6 36	6 5	52	0	4	Thurs.	6 18	5 6	5	5
5	Tues..	6 39	0 5	32	2	5	Fri....	6 36	1 5	52	6	5	Fri....	6 17	7 6	5	9
6	Wed...	6 39	2 5	32	9	6	Sat...	6 35	6 5	53	2	6	Sat...	6 16	8 6	6	3
7	Thurs.	6 39	4 5	33	6	7	SUN...	6 35	1 5	53	8	7	SUN...	6 16	0 6	6	7
8	Fri....	6 39	6 5	34	2	8	Mon..	6 34	7 5	54	4	8	Mon..	6 15	2 6	7	0
9	Sat...	6 39	8 5	34	9	9	Tues..	6 34	2 5	54	9	9	Tues..	6 14	3 6	7	4
10	SUN...	6 40	0 5	35	6	10	Wed...	6 33	7 5	55	4	10	Wed...	6 13	4 6	7	7
11	Mon..	6 40	1 5	36	3	11	Thurs.	6 33	1 5	55	9	11	Thurs.	6 12	6 6	8	1
12	Tues..	6 40	3 5	37	0	12	Fri....	6 32	6 5	56	4	12	Fri....	6 11	7 6	8	4
13	Wed...	6 40	4 5	37	6	13	Sat...	6 32	0 5	57	0	13	Sat...	6 10	8 6	8	8
14	Thurs.	6 40	4 5	38	3	14	SUN...	6 31	4 5	57	5	14	SUN...	6 9	9 6	9	1
15	Fri....	6 40	4 5	39	0	15	Mon..	6 30	8 5	58	0	15	Mon..	6 9	0 6	9	4
16	Sat...	6 40	4 5	37	7	16	Tues..	6 30	2 5	58	5	16	Tues..	6 8	1 6	9	7
17	SUN...	6 40	4 5	40	0	17	Wed...	6 29	6 5	59	0	17	Wed...	6 7	2 6	10	1
18	Mon..	6 40	4 5	41	1	18	Thurs.	6 28	9 5	59	5	18	Thurs.	6 6	3 6	10	4
19	Tues..	6 40	3 5	41	8	19	Fri....	6 28	3 6	0	0	19	Fri....	6 5	4 6	10	7
20	Wed...	6 40	3 5	42	4	20	Sat...	6 27	6 6	0	5	20	Sat...	6 4	5 6	11	0
21	Thurs.	6 40	2 5	43	1	21	SUN...	6 26	9 6	1	0	21	SUN...	6 3	6 6	11	3
22	Fri....	6 40	1 5	43	8	22	Mon..	6 26	3 6	1	4	22	Mon..	6 2	6 6	11	6
23	Sat...	6 39	9 5	44	5	23	Tues..	6 25	6 6	1	9	23	Tues..	6 1	7 6	12	0
24	SUN...	6 39	7 5	45	1	24	Wed...	6 24	8 6	2	3	24	Wed...	6 0	8 6	12	3
25	Mon..	6 39	5 5	45	8	25	Thurs.	6 24	1 6	2	7	25	Thurs.	5 59	9 6	12	6
26	Tues..	6 39	3 5	46	4	26	Fri....	6 23	3 6	3	1	26	Fri....	5 59	0 6	12	9
27	Wed...	6 39	1 5	47	0	27	Sat...	6 22	5 6	3	5	27	Sat...	5 58	1 6	13	2
28	Thurs.	6 38	9 5	47	7	28	SUN...	6 21	7 6	3	9	28	SUN...	5 57	1 6	13	5
29	Fri....	6 38	6 5	48	3							29	Mon..	5 56	2 6	13	8
30	Sat...	6 38	3 5	48	9							30	Tues..	5 55	3 6	14	1
31	SUN...	6 38	0 5	49	5							31	Wed...	5 54	3 6	14	4

DURING the year 1908 the wireless station at Kahuku, island of Oahu, has been refitted with a new and powerful plant with which it is now enabled to pick up messages at much greater distance and more distinctly than heretofore. On September 21st a message from San Francisco to the *S. S. Lurline*, en route to Honolulu, was caught also by the Kahuku station, the first Coast message without relay received.

SECOND QUARTER, 1909.

APRIL				MAY				JUNE			
D.		H.	M.	D.		H.	M.	D.		H.	M.
5	Full Moon...	9.58.4	a.m.	5	Full Moon...	1 37.8	a.m.	3	Full Moon...	2 54.7	p.m.
13	Last Quar....	4. 0.2	a.m.	12	Last Quar....	11.15.3	a.m.	10	Last Quar...	4.12.6	p.m.
19	New Moon....	6.21.3	p.m.	19	New Moon....	3.12.0	a.m.	17	New Moon....	0.58.3	p.m.
26	First Quar...	10. 6.2	p.m.	26	First Quar...	2.57.8	p.m.	25	First Quar...	8 12.8	a.m.
Day of Mo.	Day of Wk.	Sun Rises...	Sun Sets...	Day of Mo.	Day of Wk.	Sun Rises...	Sun Sets...	Day of Mo.	Day of Wk.	Sun Rises...	Sun Sets...
		H.M.	H.M.			H.M.	H.M.			H.M.	H.M.
1	Thurs.	5 53 46	6 14 8	1	Sat...	5 29 36	24 9	1	Tues..	5 17 36	37 9
2	Fri....	5 52 56	6 15 1	2	SUN..	5 28 76	25 3	2	Wed..	5 17 26	38 3
3	Sat...	5 51 66	15 4	3	Mon..	5 28 06	25 7	3	Thurs.	5 17 16	38 7
4	SUN..	5 50 86	15 7	4	Tues..	5 27 46	26 1	4	Fri....	5 17 06	39 1
5	Mon..	5 49 96	16 0	5	Wed..	5 26 86	26 5	5	Sat...	5 17 06	39 5
6	Tues..	5 49 06	16 3	6	Thurs.	5 26 26	26 9	6	SUN..	5 17 06	39 9
7	Wed..	5 48 16	16 6	7	Fri....	5 25 76	27 3	7	Mon..	5 17 06	40 2
8	Thurs.	5 47 26	17 0	8	Sat...	5 25 16	27 7	8	Tues..	5 17 06	40 6
9	Fri....	5 46 36	17 3	9	SUN..	5 24 66	28 1	9	Wed..	5 17 06	40 9
10	Sat...	5 45 46	17 6	10	Mon..	5 24 16	28 6	10	Thurs.	5 17 06	41 3
11	SUN..	5 44 66	17 9	11	Tues..	5 23 76	29 0	11	Fri....	5 17 06	41 6
12	Mon..	5 43 86	18 2	12	Wed..	5 23 26	29 4	12	Sat...	5 17 16	41 9
13	Tues..	5 43 06	18 5	13	Thurs.	5 22 86	29 8	13	SUN..	5 17 26	42 2
14	Wed..	5 42 16	18 8	14	Fri....	5 22 36	30 3	14	Mon..	5 17 36	42 5
15	Thurs.	5 41 36	19 1	15	Sat...	5 21 96	30 7	15	Tues..	5 17 56	42 8
16	Fri....	5 40 56	19 5	16	SUN..	5 21 56	31 1	16	Wed..	5 17 66	43 1
17	Sat...	5 39 76	19 8	17	Mon..	5 21 16	31 5	17	Thurs.	5 17 86	43 4
18	SUN..	5 38 96	20 2	18	Tues..	5 20 76	32 0	18	Fri....	5 17 96	43 7
19	Mon..	5 38 06	20 5	19	Wed..	5 20 46	32 4	19	Sat...	5 18 16	43 9
20	Tues..	5 37 26	20 9	20	Thurs.	5 20 16	32 8	20	SUN..	5 18 26	44 1
21	Wed..	5 36 46	21 2	21	Fri....	5 19 76	33 2	21	Mon..	5 18 46	44 4
22	Thurs.	5 35 66	21 6	22	Sat...	5 19 46	33 7	22	Tues..	5 18 66	44 6
23	Fri....	5 34 86	22 0	23	SUN..	5 19 16	34 1	23	Wed..	5 18 96	44 8
24	Sat...	5 34 16	22 3	24	Mon..	5 18 86	34 6	24	Thurs.	5 19 16	45 0
25	SUN..	5 33 46	22 7	25	Tues..	5 18 56	35 0	25	Fri....	5 19 46	45 1
26	Mon..	5 32 76	23 0	26	Wed..	5 18 26	35 5	26	Sat...	5 19 76	45 2
27	Tues..	5 32 06	23 4	27	Thurs.	5 18 06	35 9	27	SUN..	5 20 06	45 4
28	Wed..	5 31 36	23 8	28	Fri....	5 17 96	36 3	28	Mon..	5 20 36	45 5
29	Thurs.	5 30 66	24 2	29	Sat...	5 17 76	36 7	29	Tues..	5 20 66	45 6
30	Fri....	5 30 06	24 5	30	SUN..	5 17 56	37 1	30	Wed..	5 20 86	45 7
				31	Mon..	5 17 46	37 5				

THIS number of the HAWAIIAN ANNUAL completes the list of heiaus and heiau sites throughout these islands which began with the issue for 1907. The total number ascertained for all the group is 420, divided between the several islands as follows, viz: Hawaii, 138; Kauai and Niihau, 124; Oahu, 95; Maui, 39, and Molokai and Lanai, 24. So much for a careful investigation of the little known subject, which, in entering upon the search, the enquirer was told might possibly reach 80 in number.

THIRD QUARTER, 1909.

JULY				AUGUST				SEPTEMBER			
D.	H. M.			D.	H. M.			D.	H. M.		
3	Full Moon...	1.47.3	a.m.	1	Full Moon...	11.44.0	a.m.	6	Last Quar...	9.14.4	a.m.
9	Last Quar...	8.28.1	p.m.	8	Last Quar...	1.39.9	a.m.	14	New Moon...	4.38.7	a.m.
17	New Moon...	0.14.6	a.m.	15	New Moon...	1.24.7	p.m.	22	First Quar...	8.01.5	a.m.
25	First Quar...	1.15.3	a.m.	23	First Quar...	5.25.3	p.m.	29	Full Moon...	2.35.4	a.m.
				30	Full Moon...	6.37.8	p.m.				
Day of Mo.	Day of Wk.	Sun Rises.	Sun Sets.	Day of Mo.	Day of Wk.	Sun Rises.	Sun Sets.	Day of No.	Day of Wk.	Sun Rises.	Sun Sets.
		H.M.	H.M.			H.M.	H.M.			H.M.	H.M.
1	Thurs.	5 21 16	45 8	1	SUN..	5 33 06	38 9	1	Wed..	5 43 26	16 3
2	Fri...	5 21 56	45 8	2	Mon..	5 33 46	38 4	2	Thurs.	5 43 56	15 4
3	Sat...	5 21 86	45 8	3	Tues..	5 33 86	37 8	3	Fri...	5 43 76	14 5
4	SUN..	5 22 26	45 8	4	Wed..	5 34 16	37 3	4	Sat...	5 44 06	13 6
5	Mon..	5 22 56	45 8	5	Thurs.	5 34 56	36 7	5	SUN..	5 44 26	12 7
6	Tues..	5 22 96	45 8	6	Fri...	5 34 96	36 1	6	Mon..	5 44 56	11 8
7	Wed..	5 23 26	45 8	7	Sat...	5 35 36	35 5	7	Tues.	5 44 86	10 8
8	Thurs.	5 23 56	45 7	8	SUN..	5 35 66	34 9	8	Wed..	5 45 06	9 9
9	Fri...	5 23 96	45 7	9	Mon..	5 36 06	34 3	9	Thurs.	5 45 36	8 9
10	Sat...	5 24 36	45 6	10	Tues..	5 36 46	33 6	10	Fri...	5 45 66	8 0
11	SUN..	5 24 66	45 5	11	Wed..	5 36 76	33 0	11	Sat...	5 45 86	7 1
12	Mon..	5 25 06	45 4	12	Thurs.	5 37 16	32 3	12	SUN..	5 46 16	6 1
13	Tues..	5 25 46	45 2	13	Fri...	5 37 46	31 6	13	Mon..	5 46 46	5 1
14	Wed..	5 25 96	45 1	14	Sat...	5 37 86	31 0	14	Tues.	5 46 66	4 4
15	Thurs.	5 26 36	44 9	15	SUN..	5 38 16	30 3	15	Wed..	5 46 86	3 2
16	Fri...	5 26 76	44 7	16	Mon..	5 38 46	29 5	16	Thurs.	5 47 16	2 3
17	Sat...	5 27 06	44 5	17	Tues.	5 38 76	28 8	17	Fri...	5 47 36	1 3
18	SUN..	5 27 46	44 2	18	Wed..	5 39 06	28 0	18	Sat...	5 47 66	0 4
19	Mon..	5 27 86	44 0	19	Thurs.	5 39 46	27 3	19	SUN..	5 47 85	59 4
20	Tues..	5 28 26	43 7	20	Fri...	5 39 76	26 5	20	Mon..	5 48 15	58 5
21	Wed..	5 28 66	43 4	21	Sat...	5 40 06	25 7	21	Tues.	5 48 35	57 6
22	Thurs.	5 29 06	43 1	22	SUN..	5 40 36	24 9	22	Wed..	5 48 65	56 6
23	Fri...	5 29 46	42 7	23	Mon..	5 40 66	24 1	23	Thurs.	5 48 85	55 6
24	Sat...	5 29 86	42 4	24	Tues..	5 40 96	23 2	24	Fri...	5 49 15	54 7
25	SUN..	5 30 26	42 0	25	Wed..	5 41 26	22 4	25	Sat...	5 49 45	53 7
26	Mon..	5 30 66	41 6	26	Thurs.	5 41 56	21 6	26	SUN..	5 49 65	52 8
27	Tues..	5 31 06	41 2	27	Fri...	5 41 86	20 7	27	Mon..	5 49 95	51 8
28	Wed..	5 31 46	40 8	28	Sat...	5 42 16	19 8	28	Tues.	5 50 25	50 9
29	Thurs.	5 31 86	40 3	29	SUN..	5 42 46	19 0	29	Wed..	5 50 55	49 9
30	Fri...	5 32 26	39 9	30	Mon..	5 42 76	18 1	30	Thurs.	5 50 85	49 0
31	Sat...	5 32 66	39 4	31	Tues.	5 43 06	17 2				

In the study and enquiry attending the compilation of the list of ancient temples of Hawaii, there is evidence to believe that the number so far ascertained, 421, might easily have reached the 500 mark if the islands of Maui, Molokai and Lanai had been personally toured in the search as the other islands were. Unfortunately circumstances did not permit this, and but two persons (on Maui) responded to all the circulars of enquiry sent to those islands, so little cooperative interest was shown in the matter.

FOURTH QUARTER, 1909.

OCTOBER				NOVEMBER				DECEMBER			
D.		H.M.		D.		H.M.		D.		H.M.	
5	Last Quar...	0.14.2	p.m.	4	Last Quar...	11.07.8	a.m.	4	Last Quar...	5.42.5	a.m.
13	New Moon...	9.43.4	p.m.	12	New Moon...	3.48.3	p.m.	12	New Moon...	9.28.7	a.m.
21	First Quar...	8.33.6	p.m.	20	First Quar...	6.59.1	a.m.	19	First Quar...	3.47.7	p.m.
28	Full Moon...	11.37.0	a.m.	26	Full Moon...	10.21.9	p.m.	26	Full Moon...	11.59.9	a.m.
Day of Mo..	Day of Wk.	Sun Rises..	Sun Sets...	Day of Mo..	Day of Wk.	Sun Rises..	Sun Sets...	Day of Mo..	Day of Wk.	Sun Rises..	Sun Sets...
		H.M.	H.M.			H.M.	H.M.			H.M.	H.M.
1	Fri....	5 51 15	5 48 1	1	Mon...	6 2 9 5	24 3	1	Wed...	6 21 0 5	17 2
2	Sat...	5 51 4 5	4 7 2	2	Tues...	6 3 4 5	23 7	2	Thurs...	6 21 7 5	17 3
3	SUN...	5 51 7 5	4 6 3	3	Wed...	6 3 9 5	23 2	3	Fri...	6 22 4 5	17 4
4	Mon...	5 51 3 5	4 5 4	4	Thurs...	6 4 4 5	22 7	4	Sat...	6 23 0 5	17 6
5	Tues...	5 52 2 5	4 4 5	5	Fri...	6 5 0 5	22 2	5	SUN...	6 23 7 5	17 7
6	Wed...	5 52 5 5	4 3 6	6	Sat...	6 5 5 5	21 8	6	Mon...	6 24 3 5	17 9
7	Thurs...	5 52 8 5	4 2 7	7	SUN...	6 6 0 5	21 3	7	Tues...	6 24 9 5	18 1
8	Fri...	5 53 1 5	4 1 8	8	Mon...	6 6 6 5	20 9	8	Wed...	6 25 6 5	18 4
9	Sat...	5 53 5 5	4 0 9	9	Tues...	6 7 2 5	20 5	9	Thurs...	6 26 2 5	18 7
10	SUN...	5 53 8 5	4 0 0	10	Wed...	6 7 8 5	20 2	10	Fri...	6 26 8 5	19 0
11	Mon...	5 54 2 5	3 9 2	11	Thurs...	6 8 4 5	19 8	11	Sat...	6 27 4 5	19 3
12	Tues...	5 54 5 5	3 8 4	12	Fri...	6 9 0 5	19 4	12	SUN...	6 28 0 5	19 7
13	Wed...	5 54 8 5	3 7 6	13	Sat...	6 9 6 5	19 1	13	Mon...	6 28 6 5	20 0
14	Thurs...	5 55 2 5	3 6 7	14	SUN...	6 10 2 5	18 8	14	Tues...	6 29 2 5	20 4
15	Fri...	5 55 6 5	3 5 9	15	Mon...	6 10 9 5	18 5	15	Wed...	6 29 8 5	20 7
16	Sat...	5 55 9 5	3 5 1	16	Tues...	6 11 5 5	18 2	16	Thurs...	6 30 4 5	21 1
17	SUN...	5 56 3 5	3 4 3	17	Wed...	6 12 1 5	17 9	17	Fri...	6 30 9 5	21 5
18	Mon...	5 56 7 5	3 3 5	18	Thurs...	6 12 7 5	17 7	18	Sat...	6 31 5 5	22 0
19	Tues...	5 57 0 5	3 2 7	19	Fri...	6 13 3 5	17 5	19	SUN...	6 32 0 5	22 4
20	Wed...	5 57 4 5	3 2 0	20	Sat...	6 13 9 5	17 3	20	Mon...	6 32 6 5	22 9
21	Thurs...	5 57 8 5	3 1 2	21	SUN...	6 14 5 5	17 2	21	Tues...	6 33 1 5	23 4
22	Fri...	5 58 3 5	3 0 5	22	Mon...	6 15 2 5	17 1	22	Wed...	6 33 6 5	23 9
23	Sat...	5 58 8 5	2 9 8	23	Tues...	6 15 8 5	17 1	23	Thurs...	6 34 1 5	24 4
24	SUN...	5 59 2 5	2 9 1	24	Wed...	6 16 5 5	17 0	24	Fri...	6 34 6 5	24 9
25	Mon...	5 59 6 5	2 8 4	25	Thurs...	6 17 1 5	17 0	25	Sat...	6 35 1 5	25 4
26	Tues...	6 0 1 5	2 7 8	26	Fri...	6 17 8 5	17 0	26	SUN...	6 35 6 5	26 0
27	Wed...	6 0 6 5	2 7 2	27	Sat...	6 18 4 5	17 0	27	Mon...	6 36 0 5	26 6
28	Thurs...	6 1 0 5	2 6 6	28	SUN...	6 18 9 5	17 0	28	Tues...	6 36 4 5	27 2
29	Fri...	6 1 5 5	2 6 0	29	Mon...	6 19 7 5	17 1	29	Wed...	6 36 7 5	27 8
30	Sat...	6 2 0 5	2 5 4	30	Tues...	6 20 4 5	17 1	30	Thurs...	6 37 0 5	28 4
31	SUN...	6 2 4 5	2 4 8					31	Fri...	6 37 3 5	29 0

CAREFUL investigation and enquiry have been in progress this past year by two important committees of the governor's appointment, as directed by the last legislature, to look into and report at the next session, any needed revision of our taxation system, and of the land laws of the Territory, more particularly those relating to homesteading. If our solons are as painstaking in dealing with the reports as the committees have been in their preparation, less friction will be experienced.

INTER-ISLAND DISTANCES BY SEA IN SEA MILES.

AROUND OAHU FROM HONOLULU—ESPLANADE WHARF TO

	Miles.		Miles.
Bell Buoy	1¼	Pearl River Bar.....	6
Diamond Head	5	Barber's Point	15
Koko Head	12	Waianae Anchorage	26
Makapuu Point	16	Kaena Point, N. W. of Oahu....	36
Mokapu	27	Waialua Anchorage	46
Kahuku North Point.....	48	Kahuku N. Pt., Oahu, via Kaena. 58	

HONOLULU TO

Lae o ka Laau, S. W. Pt. Molokai 35	Kawaihae, Hawaii.....	144
Kalaupapa, Leper Settlement.... 52	Kealakekua, " (direct)	157
West Point of Lanai..... 50	" " (via Kawaihae)	186
Lahaina, Maui..... 72	S. W. Pt. Hawaii "	233
Kahului, "	Punaluu, "	250
Hana, "	Hilo, " (direct)	192
Maalaea, "	" " (windward)	206
Makena, "	" " (via Kawaihae)	230
Mahukona, Hawaii		134

HONOLULU TO

Nawiliwili, Kauai	98	Hanalei, Kauai	125
Koloa, "	102	Niihau	144
Waimea, "	120		

LAHAINA, MAUI, TO

Kaluaaha, Molokai	17	Maalaea, Maui	12
Lanai	9	Makena, Maui	18

KAWAIHAE, HAWAII, TO

Mahukona, Hawaii	10	Hilo, Hawaii	85
Waipio, Hawaii	37	Lae o ka Mano, Hawaii.....	20
Honokaa, Hawaii	45	Kailua, Hawaii	34
Laupahoehoe, Hawaii	62	Kealakekua, Hawaii	44

HILO, HAWAII, TO

East Point of Hawaii.....	20	Punaluu, Hawaii	70
Keauhou, Kau. Hawaii.....	50	Kaualuu, Hawaii	80
North Point of Hawaii.....	62	South Point of Hawaii.....	85

WIDTH OF CHANNELS.

Oahu and Molokai.....	23	Maui and Lanai.....	7
Diamond Head to S. W. Point of Molokai	30	Maui and Kahoolawe.....	6
Molokai and Lanai.....	7	Hawaii and Maui.....	26
Molokai and Maui.....	8	Kauai and Oahu.....	63
		Niihau and Kauai.....	15

OCEAN DISTANCES.

HONOLULU TO

San Francisco	2100	Auckland	3810
San Diego	2260	Sydney	4410
Portland, Or.	2360	Hongkong	4920
Brito, Nicaragua	4200	Yokohama	3400
Panama	4720	Guam	3300
Tahiti	2440	Manila, via N. E. Cape.....	4890
Samoa	2290	Victoria, B. C.	2460
Fiji	2700	Midway Islands	1200

OVERLAND DISTANCES.

Revised for the Annual in accordance with latest Government Survey measurements.
The outer column of figures indicates the distance between points

ISLAND OF OAHU.

HONOLULU POST-OFFICE TO

	Miles.		Miles.	Inter.
Bishop's corner (Waikiki).....	3.2	Kahana	26.4	4.5
Waikiki Villa	3.6	Punaluu	28.4	2.0
Race Course	4.5	Hauula	31.4	3.0
Diamond Head	5.9	Laie	34.4	3.0
Kaalawai	6.0	Kahuku Mill	37.2	2.8
	Miles. Inter.	Kahuku Ranch	40.0	2.8
Thomas Square	1.0			
Pawaa corners	2.0	Moanalua	3.4	
Kamoiilili	3.3	Kalauao	7.4	4.0
Telegraph Hill	5.0	Ewa Church	10.2	2.8
Waialae	6.2	Kipapa	13.6	3.4
Niu	8.8	Kaukonahua	20.0	6.4
Koko Head	11.8	Leilehua	20.0	
Makapuu	14.8	Waialua	28.0	8.0
Waimanalo	20.8	Waimea	32.4	4.4
Waimanalo, via Pali.....	12.0	Kahuku Ranch	39.4	7.0
Nuuanu Bridge	1.1	Ewa Church	10.2	
Mausoleum	1.5	Waipio (Brown's)	11.2	1.0
Electric Reservoir	2.7	Hoaeae (Robinson's)	13.5	2.3
Luakaha	4.3	Barber's Point, L. H.	21.5	8.0
*Pali	6.2	Nanakuli	23.5	2.0
Kaneohe (new road).....	11.9	Waianae Plantation	29.9	6.4
Waiahole	18.9	Kahanahaiki	36.9	7.0
Kualoa	21.9	Kaena Point	42.0	5.1
		Waialua to Kaena Pt.	12.0	

OAHU RAILWAY: DISTANCES FROM HONOLULU DEPOT TO

	Miles.		Miles.
Moanalua	2.76	Waipio	13.58
Punaloa	6.23	Waikale	14.57
Halawa	8.14	Hoaeae	15.23
Aiea	9.37	Ewa Plantation Mill	18.25
Kalauao	10.20	Waianae Station	33.30
Waiau	10.93	Kaena Point	44.50
Pearl City	11.76	Waialua Station	55.80
Waiawa	12.52	Kahuku Plantation	69.50
Wahiawa Station	25.20	Punaluu	80.50

ISLAND OF KAUAI.

NAWILIWILI TO

	Miles.	Inter.		Miles.	Inter.
Koloa	11.0		Wailua River	7.7	4.4
Lawai	13.8	2.8	Kealia	11.9	4.2
Hanapepe	20.0	6.2	Anahola	15.7	3.8
Waimea	27.1	7.1	Kilauea	23.6	7.9
Waiawa	31.5	4.4	Kalihiwai	26.6	3.0
Nuololo	44.8	13.3	Hanalei	31.8	5.2
			Wainiha	34.8	3.0
Hanamaulu	3.3		Nuololo (no road)	47.0	12.2

* Pali distance is by the old Road, new measurements are not of record.

ISLAND OF MAUI.

KAHULUI TO

	Miles.	Inter.		Miles.	Inter.
Spreckelsville	3.5		Paia	5.5	
Paia	5.5	2.0	Makawao Court House. .	10.5	5.0
Hamakuapoko Mill	8.6	3.1	Olinda	16.7	6.2
Haiku	10.2	1.6	Haleakala, edge Crater. .	22.5	5.8
Halehaku	16.0	5.8	Haleakala Summit	24.7	2.2
Huelo	19.5	3.5			
Keanae	27.2	7.7	Maalaea	9.9	
Nahiku	32.7	5.5	End of Mountain Road. .	15.4	5.5
Ulaino	36.3	3.6	Olowalu	19.6	4.2
Hana	42.3	6.0	Lahaina Court House. . .	25.5	5.9
Hamoā	45.3	3.0			
Wailua	48.9	3.6	Waiehu	3.3	
Kipahulu Mill	52.2	3.3	Waihee	4.8	1.5
Mokulau	56.6	4.4	Kahakuloa	10.1	5.3
Nuu	62.1	5.5	Honokohau	14.5	4.4
			Honolua	17.4	2.9
Wailuku	3.1		Napili	20.0	2.5
Waikapu	5.5	2.4	Honokawai	23.8	3.8
Maalaea	9.9	4.4	Lahaina Court House. . .	29.3	5.5
Kalepolepo	14.6	4.7			
Mana	22.3	7.7	MAKENA TO		
Ulupalakua	25.6	3.3	Ulupalakua	3.3	
Kanaio	28.9	3.3	Kamaole	7.1	3.8
Pico's	35.5	6.6	Waiakoa	12.1	5.0
Nuu	41.0	5.5	Foot of Puu Pane.	15.8	3.7
			Makawao Court House. .	21.8	6.0

ISLAND OF HAWAII.

WAIMEA COURT HOUSE TO

	Miles.	Inter.		Miles.	Inter.
Hamakua boundary	4.5		Hilo, via Humuula St'n. .	54.0	25.0
Kukuihaele Mill	11.0	6.5	Keamuku Sheep St'n. . .	14.0	3.25
Mana	7.7		Napuu	22.0	8.0
Hanaipoe	15.0	7.3	Keawewai	8.0	
Keanakolu	24.0	9.0	Waika	11.0	3.0
Puakala	34.0	10.0	Kahuwa	13.0	2.0
Laumaia	36.5	2.5	Puuhue	17.0	4.0
Auwaiakewa	12.5		Kohala Court House . . .	22.0	5.0
Humuulu Sheep Station. .	29.0	16.5	Mahukona	22.0	
Via Laumaia	47.5		Puako	12.0	

NORTH KOHALA.—FOREIGN CHURCH, KOHALA, TO

	Miles.		Miles.
Edge of Pololu Gulch. . . .	4.00	Union Mill	2.25
Niuli Mill	2.80	Union Mill R. R. Station. .	3.25
Halawa Mill	1.65	Honomakau	2.55
Hapuu Landing	2.15	Hind's, Hawi	3.25
Kohala Mill . . . . .	.50	Hawi R. R. Station. . . .	4.25
Kohala Mill Landing. . . .	1.50	Honoipu	7.25
Native Church	1.00	Mahukona	10.50
		Puuhue Ranch	7.25

NORTH KOHALA.—ON MAIN ROAD, MAHUKONA TO

	Miles.	Inter.		Miles.	Inter.
Hind's Mill	7.0		Wight's Corner	11.5	1.1
Union Mill Corner.....	8.0	1.0	Niulii Corner	12.8	1.3
Court House	9.2	1.2	Pololu Edge of Gulch....	14.5	1.7
Bond's Corner	9.7	0.5	Puu Hue	5.0	
Kohala Mill Corner.....	10.4	0.7			

SOUTH KOHALA.—KAWAIHAE TO

	Miles.	Inter.		Miles.
Puu Ainako	4.4		Mana, Parker's	19.5
Puuiki	7.7	3.3	Keawewai	6.0
Waiaka, Catholic Church.	9.5	1.8	Puuhue Ranch	10.0
Puuopelu, Parker's	10.8	1.3	Kohala Court House.....	15.0
Waimea Court House.....	11.8	1.0	Mahukona	11.0
Waimea Church	12.2	0.4	Napuu	20.0
Kukuihaele Church	22.1	9.9	Puako	5.0

KONA. KEALAKEKUA TO

Keauhou	6.0		Kawaihae	42.0	4.6
Holualoa	9.6	3.6	Honaunau	4.0	
Kailua	12.0	2.4	Hookena	7.7	3.7
Kaloko	16.0	4.0	Olelomoana	15.2	7.5
Makalawena	19.6	3.6	Hoopuloa	21.6	6.4
Kiholo	27.6	8.0	Boundary of Kau.....	24.8	3.2
Ke Au a Lono bound'ry.	31.6	4.0	Flow of '87.....	32.0	7.2
Puako	37.4	5.8	Kahuku Ranch	36.5	4.5

KAU.—VOLCANO HOUSE TO

Half-way House	13.0		Honuapo	32.6	5.0
Kapapala	18.0	5.0	Naalehu	35.6	3.0
Pahala	23.0	5.0	Waiohinu	37.1	1.5
Punaluu	27.6	4.6	Kahuku Ranch	43.1	6.0

PUNA.—HILO COURT HOUSE TO

(By new road.)

	Miles.		Miles.
Keaau, Forks of Road.....	9.0	Kaimu	32.0
Pahoa	20.0	Kalapana	33.0
Pohoiki	28.0	Keauhou	50.0
Kapoho (Lyman's)	32.0	Panau	40.0
Opihikao	31.0	Volcano House via Panau....	56.0
Kamaili	26.0	Sand Hills, Naawale, old road..	18.5
Kamaili Beach	29.0	Kapoho, old road	22.0

TO VOLCANO.—HILO TO

Shipman's	1.7	Mountain View	16.8
Edge of Woods	4.1	Mason's	17.5
Cocanut Grove	8.0	Hitchcock's	23.5
Branch Road to Puna.....	9.0	Cattle Pen	24.7
Furneaux's	13.2	Volcano House	31.0

THROUGH HILO DISTRICT TO

Honolii Bridge	2.5	Honohina Church	17.8
Papaikou Office	4.7	Waikaumalo Bridge	18.8
Onomea Church	6.9	Pohakupuka Bridge	21.0
Kaupakuea Cross Road.....	10.7	Maulua Gulch	22.0
Kolekole Bridge	14.3	Kaiwilahilahi Bridge	24.0
Hakalau, east edge gulch.....	15.0	Lydgate's House	26.1
Umauma Bridge	16.0	Laupahoehoe Church	26.7

THROUGH HAMAKUA.—LAUPAHOEHOE CHURCH TO

	Miles.		Miles.
Bottom Kawalii Gulch.....	2.0	Kuaikalua Gulch	22.0
Ookala, Manager's House.....	4.0	Kapulena Church	23.9
Kealakaha Gulch	6.0	Waipanihua	24.3
Kukaiau Gulch	8.0	Stream at Kukuihaele.....	26.0
Horner's	8.5	Edge Waipio	26.5
Catholic Church, Kainehe.....	9.0	Bottom Waipio	27.0
Notley's, Paauiilo	10.5	Waimanu (approximate)	32.5
Kaumoalii Bridge	12.5	Kukuihaele to Waimea (approximate)	10.5
Bottom Kalopa Gulch.....	14.0	Gov't. Road to Hamakua Mill....	1.5
Wm. Horner's, Paauhau.....	15.2	Gov't. Road to Paauhau Mill....	1.0
Paauhau Church	16.3	Gov't. Road to Pacific Sugar Mill,	
Holmes' Store, Honokaa.....	18.0	Kukuihaele	0.7
Honokaia Church	20.5		

ISLAND OF MOLOKAI.

KAUNAKAKAI TO

Meyer's, Kalae	5.0	Pukoo	15.0
Kalaupapa	9.3	Halawa	25.0
Kamaloo	9.0	Ka Lae o ka Laau.....	19.0
Kaluaaha	13.5		

TABLE OF ELEVATIONS OF PRINCIPAL LOCALITIES THROUGHOUT THE ISLANDS.

(From Government Survey Records; Measurements from mean Sea Level.)

OAHU PEAKS.

	Feet.		Feet.
Kaala, Waianae Range.....	4030	Kaimuki Hill	291
Palikey, Waianae Range.....	3111	Koko Head, higher crater.....	1205
Konahuanui Peak, S. of Pali.....	3105	Koko Head, lower crater.....	644
Lanihuli Peak, N. of Pali.....	2781	Makapuu, east point of island....	665
Tantalus or Puu Ohia.....	2013	Mokapu, crater off Kaneohe....	681
Awawaloa (Olympus), Manoa.....	2447	Olomana, sharp peak, Kailua....	1645
Round Top or Ualakaa.....	1049	Maelieli, sharp peak, Heeia....	715
Punchbowl Hill or Puowaina....	498	Ohulehule, sharp peak, Haki-puu.	2263
Diamond Head or Leahi.....	761	Koolau Range, above Wahiawa.	2381

LOCALITIES NEAR HONOLULU.

Nuuanu Road, cor. School St....	40	Nuuanu Road, Queen Emma's..	358
" " second bridge....	77	" " cor. above Elec-	
" " cor. Judd St.....	137	tric Light Works.....	429
" " Cemetery gate....	162	Nuuanu Road, large bridge....	735
" " Mau's'l'm gate....	206	" " Luakaha gate....	848
" " Schaefer's gate..	238	" " Pali, old station.	1214

MOLOKAI, ETC.

Kamakou Peak	4958	Kaolewa Pali, o'v'lkng. Setflmnt.	2100
Oloku Peak	4600	Meyer's, Kalae	1485
Kaunuuohua	4535	Mauna Loa, near Kaunakakai....	1382
Kalapamoa	4004	Kualapuu Hill	1018
Puu Kolekole	3951	Kahoolawe (Moaula Hill).....	1472
Kaulahuki	3749	Molokini	160
Kaapahu Station	3563	Lanai	3400

HAWAII.

	Feet.		Feet.
Mauna Kea	13,825	Hiilawe Falls	1700
Mauna Loa	13,675	Parker's, Mana	3505
Hualalai	8275	Honokaa Store	1100
Kohala Mountains	5489	Kaluamakani, Hamakua	7584
Kilauea Vol. House, by leveling	3971	Lower edge forest, Hamakua ..	1700
Kulani, near Kilauea.....	5574	Lower edge forest, Hilo.....	1200
Kalaihea	6660	Laupahoehoe Pali	385
Aahuwela, near Laumaia.....	7747	Kauku Hill	1964
Hitchcock's, Puakala	6325	Puu Alala	762
Ahumo'a	7034	Halai Hill	347
Waimea Court House.....	2669	Puu o Nale, Kohala.....	1797
Waipio Pali, in Mountain....	3000	B. D. Bond's, Kohala.....	521
Waipio Pali, on S (Road)....	900	Episcopal Church, Kainaliu...	1578
Waipio Pali, on N. side.....	1394	Puu Enuhe, Kau.....	2327
Waimanu, at sea.....	1600	Puu Hoomaha, Kau.....	6636
Waimanu, in mountain.....	4000	Puu ka Pele, Kau.....	5768
Waiau Lake, Mauna Kea.....	13,041	Pohaku Hanalei, Kau.....	12,310
Poliahu, Mauna Kea.....	13,646	Kapoho Hill, Puna.....	432
Kalaieha, N. Hilo.....	6738	Kaliu Hill, Puna.....	1065
Pohaku Hanalei, Humuula....	7343	Olaa Trig. Station.....	622

MAUI.

Haleakala (Red Hill).....	10,032	Puu Kapuai, Hamakua.....	1150
Mt. Kukui, West Maui.....	5790	Puu o Umi, Haiku.....	629
Piiholo, Makawao	2256	Puu Pane, Kula.....	2568
Puu Olai (Miller's Hill).....	355	Lahainaluna Seminary	600
Puu Io, near Ulupalakua.....	2841	Kauiki, Hana	392
Ulupalakua, about	1800	"Sunnyside" Makawao	930
Olinda, Makawao	4043	Paia Foreign Church, about. .	850
Puu Pane, Kahikinui.....	3988	Eka, crater in Waihee.....	4500
Puu Nianiau, Makawao.....	6850	Keakaamanu, Hana	1250

KAUAI

Haupu	2030	Mt. Waialeale, central peak....	5250
Kilohana, about	1100	Namolokama	4200

NOTE—A large number of approximate elevations of stations where rain records are kept may be found in the Rain Tables in this Annual.

Area, Elevation and Population of the Hawaiian Islands.

(As revised by latest Government Survey Records.)

Islands.	Area in Statute Square Miles.	Acres.	Height in Feet.	Population in 1900.
Hawaii.....	4,015	2,570,000	13,825	46,843
Maui.....	728	466,000	10,032	24,797
Oahu.....	598	384,000	4,030	58,504
Kauai.....	547	348,000	5,250	20,562
Molokai.....	261	167,000	4,958	2,504
Lanai.....	139	86,000	3,400	619
Niihau.....	97	62,000	1,300	172
Kahoolawe.....	69	44,000	1,472	.....

Total area of Hawaiian Islands, 6,449 miles.

The outlying islets on the N. W. may amount to 6 square miles.

KILAUEA, ISLAND OF HAWAII.

Corrected for Deflection of the Vertical.

Area, 4.14 square miles, or 2,650 acres.
 Circumference, 41,500 feet, or 7.85 miles.
 Extreme width, 10,300 feet, or 1.95 miles.
 Extreme Length, 15,500 feet, or 2.93 miles.
 Elevation, Volcano House, 4,000 feet.

MOKUAWEOWEO.

The Summit Crater of Mauna Loa, Island of Hawaii.

Area, 3.70 square miles, or 2,370 acres.
 Circumference, 50,000 feet, or 9.47 miles.
 Length, 19,500 feet, or 3.7 miles.
 Width, 9,200 feet, or 1.74 miles. Elevation of summit, 13,675 feet.

HALEAKALA, MAUI.

The great Crater of Maui, the largest in the world.

Area, 19 square miles, or 12,160 acres.
 Circumference, 105,600 feet, or 20 miles.
 Extreme Length, 39,500 feet, or 7.48 miles.
 Extreme width, 12,500 feet, or 2.37 miles.
 Elevation to summit, 10,032 feet.
 Elevation of principal cones in crater, 8,032 and 1,572 feet.
 Elevation of cave in floor of crater, 7,380 feet.

IAO VALLEY, MAUI.

Length (from Wailuku), about 5 miles.
 Width of Valley, 2 miles.
 Depth, near head, 4,000 feet.
 Elevation of Pun Kukui, above head of Valley, 5,700 feet.
 Elevation of Crater of Eke, above Waihee Valley, 4,500 feet.

Standard and Local Time.

The Standard Time of the Hawaiian Islands is that of Longitude $157^{\circ} 30' W.$, 10 h. 30 m. slower than Greenwich Time. The time of sunrise and sunset given in the tables is of course local time; to correct this to standard time, add or subtract a correction corresponding with the differences between $157^{\circ} 30'$ and the longitude of the station.

The corrections would be for the following stations:

Niihau	+10:8 m	Wailuku, Maui	— 4:0 m
Mana, Kauai	+ 9:0 m	Haiku, Maui	— 4:8 m
Koloa, Kauai	+ 7:9 m	Hana, Maui	— 6:0 m
Kilauea, Kauai	+ 7:3 m	Kailua, Hawaii	— 6:2 m
Waialua, Oahu	+ 2:5 m	Kohala, Hawaii	— 7:0 m
Kahuku, Oahu	+ 2:0 m	Kukuihaele, Hawaii	— 8:0 m
Honolulu, Oahu	+ 1:5 m	Punaluu, Hawaii	— 8:0 m
Kalae, Molokai	— 2:0 m	Ookala, Hawaii	— 9:0 m
Lanai	— 2:5 m	Hilo, Hawaii	— 9:8 m
Lahaina, Maui	— 3:0 m		

LATEST CENSUS—HAWAIIAN ISLANDS.

From Census Bulletin, Washington, D. C., 1900.

Total Population by Districts and Islands—Comparative 1900 and 1896.

HAWAII	1900	1906	OAHU	1900	1896
Hilo	19,785	12,878	Honolulu	39,306	29,920
Puna	5,128	1,748	Ewa	9,689	3,067
Kau	3,854	2,908	Waianae	1,008	1,281
North Kona	3,819	3,061	Waialua	3,285	1,349
South Kona	2,372	2,327	Koolauloa	2,372	1,835
North Kohala	4,366	4,125	Koolaupoko	2,844	2,753
South Kohala	600	558			
Hamakua	6,919	5,680	KAUAI	58,504	40,205
MAUI	46,843	33,285	Waimea	5,714	4,431
			Niihau	172	164
Lahaina	4,352	2,398	Koloa	4,564	1,835
Wailuku	7,953	6,072	Kawaihau	3,220	2,762
Hana	5,276	3,792	Hanalei	2,630	2,775
Makawao	7,236	5,464	Lihue	4,434	3,425
	24,797	17,726		20,734	15,392
Molokai and Lanai	3,123	2,417	Total whole group	154,001	109,020

Comparative Table of Nationality of Population of Hawaiian Islands at various census periods since 1872.

Nationality	1872	1878	1884	1890	1896	1900
Natives	94,944	44,088	40,015	34,436	31,019	29,787
Part Hawaiians	1,487	3,420	4,218	6,186	8,485	7,848
Chinese	1,938	5,916	17,937	15,301	19,382	25,762
Americans	889	1,276	2,066	1,928	2,266	7,283
Hawaiian-born foreigners	849	947	2,040	7,495	13,733	
British	618	883	1,281	1,344	1,538	1,730
Portuguese	395	436	9,377	8,602	8,232	15,675
German	224	272	1,600	1,434	912	1,154
French	88	81	192	70	75	.....
Japanese .....	.....	.....	116	12,360	22,329	61,115
Norwegian .....	.....	.....	362	227	216	410
Other foreigners	364	666	416	419	424	2,584
Polynesian .....	.....	.....	965	588	409	653
Total	56,897	57,985	80,578	89,990	109,020	154,001

Population of Honolulu at various census periods.

1884	20,487	1896	29,926
1890	22,907	1900	39,300

Foreign Born Population of Hawaii, 1900, distributed according to country of births:

As reported for the Annual by the Census Bureau, Washington, D. C.

Country	Hawaii	Kauai and Niihau*	Lanai and Maui	Molokai	Oahu	Total
Atlantic Islands	522	76	154	12	392	1,156
Austria.....	99	26	64	....	36	225
Canada (Engl.)	79	11	9	2	238	339
China	4,202	3,265	2,988	77	11,209	21,741
England.....	142	35	49	6	507	739
Germany	135	334	71	11	603	1,154
Ireland.....	25	9	15	4	172	225
Japan	21,314	9,736	10,465	382	14,337	56,234
Norway and Demark.....	31	50	44	6	139	270
Pacific Islands..	49	63	161	11	308	593
Portugal.....	2,217	727	1,032	6	2,530	6,512
Scotland.....	163	39	39	1	185	427
Spain	54	12	27	....	109	202
Sweden.....	40	4	9	2	85	140
Other Countries	162	85	64	9	503	823
Total	29,234	14,472	15,191	529	31,354	90,780

* Niihau's share of Foreign born is 3; one each Scotch, Japanese and one other.

Native Born Population of Hawaii, 1900.

The total native born Population of Hawaii is 63,221, which is made up as follows:

Hawaiian	29,787	Negros	178
Part Hawaiian.....	7,844	South Sea Islanders.....	60
Caucasians.....	7,283	Japanese	4,881
Portuguese	9,263	Chinese	4,021

Comparative Table, of Population, Hawaiian Islands— Census Periods 1853-1900.

Islands	1853	1860	1866	1872	1878	1884	1890	1896	1900
Hawaii....	24,450	21,481	19,808	16,001	17,034	24,991	26,754	33,285	46,843
Maui	17,574	16,400	14,035	12,334	12,109	15,970	17,357	17,726	24,797
Oahu	19,126	21,275	19,799	20,671	20,236	28,068	31,194	40,205	58,504
Kauai	6,991	6,487	6,299	4,961	5,634	*8,935	11,643	15,228	20,562
Molokai....	3,607	2,864	2,299	2,349	2,581	.....	2,652	2,307	2,504
Lanai	600	646	394	348	214	2,614	174	105	619
Niihau.....	790	647	325	233	177	.....	216	164	172
Kahoolawe .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total....	73,138	69,800	62,959	56,897	57,985	80,578	89,900	109,020	154,001
All For'g'rs	2,119	2,716	4,194	5,366	10,477	36,346	49,368	69,516	116,366
Hawaiians.	71,019	67,084	58,765	51,531	47,508	44,228	40,622	39,504	37,635

* Including Niihau.

School Statistics, Territory of Hawaii.

From Report of the Superintendent of Public Instruction.

NUMBER OF SCHOOLS, CLASS, ETC., 1907-8.

ISLANDS	PUBLIC SCHOOLS June, 1908					PRIVATE SCHOOLS Dec, 1907		
	No. of Schools	No. of Teachers	No. of Pupils			No. of Schools	No. of Teachers	No. of Pupils
			Boys	Girls	Total			
Hawaii	61	156	3,299	2,734	6,033	10	31	823
Oahu	35	178	3,823	3,195	7,018	26	144	2,977
Maui, Molokai and Lanai	41	86	1,725	1,378	3,103	12	37	958
Kauai and Niihau	17	56	1,330	1,080	2,410	3	6	115
Totals	154	476	10,177	8,387	18,564	51	218	4,881

NUMBER OF SCHOOLS, TEACHERS AND PUPILS, 1907-8.

CLASS	Schools	TEACHERS			PUPILS		
		M.	F.	Total	M.	F.	Total
Public Schools	154	103	373	476	10,177	8,387	18,564
Private "	51	64	154	218	2,622	2,259	4,881
Totals	205	167	527	694	12,799	10,646	23,445

AGES OF PUPILS IN PUBLIC AND PRIVATE SCHOOLS, 1907-8

SEX	Under 6	6-15	Over 15	Total
Boys	529	11,148	1,122	12,799
Girls	576	9,397	673	10,646
Total	1,105	20,545	1,795	23,445

NATIONALITY OF PUPILS, 1907-8.

	Public	Private		Public	Private
Hawaiians	3,879	696	Chinese	1,975	621
Part Hawaiians	2,516	1,032	Japanese	5,025	488
Americans	429	501	Porto Ricans	339	16
English	87	132	Korean	165	59
Germans	143	100	Other Foreigners	476	161
Portuguese	3,476	1,061			
Scandinavian	54	14	Total	18,564	4,881

The nationality of teachers in all schools of the Islands, 1907, was as follows: Hawaiian, 93; Part Hawaiian, 136; American, 413; English, 46; Scandinavian, 3; Germans, 13; Portuguese, 44; Chinese, 17; Japanese, 7; other Foreigners, 22; Total, 694.

Church Statistics, 1908.

DENOMINATIONS	No. of Churches	No. of Pastors or Priests	No. of Members	No. of Sun. Schools	No. of Sunday School Scholars	Value of Church Property
Christian Church	4	1	150	4	150	\$ 13,500
Methodist Episcpl Church	17	24	1,256	32	1,237	63,980
Latter Day Saints	20	220	5,133	63	2,404	16,784
Reorganized Church...	1	1	156	3	100	6,500
German Lutheran Ch'ch	2	2	250	2	28	50,000
Seventh Day Adventists	1	1	30	1	40	6,000
Prot. Episcopal Church *	20	20	2,860	20	884	300,000
Buddhists (4 Sects)	35	40	46,000	.....	.....	80,200
Congregational Church.	101	84	6,903	84	7,171	505,168
Roman Catholic Church	105	31	35,000	15	2,400	300,000
Total	306	414	97,738	224	14,414	\$ 1,342,132

* Congregations.

Vital Statistics, Territory of Hawaii.

For the Fiscal Year ending June, 1908. Summarized from Board of Health Reports.

ISLANDS, ETC.	Births	Marriages	Deaths
Honolulu	965	1,319	907
Other Districts of Oahu County	702	86	262
Hawaii County	1,442	323	812
Maui County	755	319	422
Kalawao County	13	20	81
Kauai County	716	147	276
Total, 1907-08	4,593	2,214	2,760
" 1906-07	2,848	1,680	3,022
" 1905-06	2,672	1,238	2,798
" 1904-05	2,490	1,180	2,640

Table of Births and Deaths by Nationalities and Counties.

Compiled from Board of Health Report for Fiscal Year ending June, 1908.

NATIONALITY	Honolulu		Other dist. Oahu		Hawaii		Maui		Kalawao		Kauai		TOTAL	
	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths
American...	88	64	3	.....	13	10	16	6	.....	2	6	2	126	84
British	18	15	3	1	8	5	1	.....	1	.....	.....	.....	30	22
Chinese	197	111	27	19	61	28	67	36	.....	3	36	16	388	213
German	10	.....	3	.....	11	.....	4	.....	.....	.....	9	.....	37	.....
Hawaiian...	205	367	73	85	172	246	158	172	13	69	53	77	674	1,016
Japanese	377	167	499	126	759	326	330	157	.....	3	480	132	2,445	911
Porto Rican	8	32	12	.....	96	37	40	.....	.....	.....	18	.....	174	69
Portuguese	52	75	68	24	266	121	126	28	.....	.....	79	18	591	266
Prt. Haw'n	.....	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33
Spanish	6	.....	9	.....	45	22	6	.....	.....	.....	20	.....	86	22
Others	4	43	5	7	11	17	7	23	.....	3	15	31	42	124
Total	965	907	702	262	1,442	812	755	422	13	81	716	276	4,593	2,760

Import Values from United States for fiscal year ending June, 1908.

Compiled from Monthly Summary of Commerce and Finance, Bureau of Statistics.

Articles.	Domestic Mdse.	Foreign Mdse.	
		Dutiable	Free
Agricultural Implements	\$ 31,286	.....	.....
Aluminum	922	.....	.....
Animals	188,321	.....	.....
Art Works	4,045	.....	.....
Books, Maps, etc.	110,532	.....	.....
Brass, and manufactures of.....	32,721	.....	.....
Breadstuffs	1,675,187	\$ 315	\$ 582
Bricks	17,707	.....	.....
Brooms and Brushes.....	21,746	.....	.....
Candles	6,181	.....	.....
Carriages, Cars, etc., and parts of...	452,040	.....	.....
Cement	73,466	6,960	.....
Chemicals, Drugs, Dyes, etc.	309,764	280,463	.....
Clocks, Watches, and parts of.....	17,541	.....	.....
Coal and Coke	185,605	6,000	.....
Cocoa and Chocolate.....	14,715	.....	.....
Coffee, prepared	8,959	.....	9,268
Copper and manufactures of.....	39,930	.....	.....
Cork, manufactures of.....	8,181	.....	.....
Cotton, manufactures of.....	1,245,585	13,602	.....
Earthen, Stone and Chinaware.....	45,179	11,421	.....
Eggs	16,511	.....	.....
Explosives	79,448	.....	.....
Fertilizers	912,979	.....	.....
Fibers, Textile Grasses, man. of....	127,672	292	.....
Fish	290,695	3,982	18
Fruits and Nuts	182,358	553	.....
Furniture of Metal.....	16,942	.....	.....
Glass and Glassware.....	95,935	2,307	.....
Grease and Soap Stock.....	6,533	.....	.....
Hair and manufactures of.....	3,112	.....	.....
Hay	182,636	.....	.....
India Rubber, manufactures of.....	126,001	.....	.....
Instruments, etc., for scientific purp.	72,167	.....	.....
Iron and Steel and manufactures of..	115,385	.....	.....
Sheets and Plates, etc.	333,957	.....	.....
Builder's Hardware, etc.	405,876	.....	.....
Machinery, Machines, parts of..	691,739	.....	.....
Nails, Spikes, Pipes, etc.	565,976	.....	.....
Jewelry & man'ftrs., Gold & Silver..	22,484	407	.....
Lamps, Chandeliers, etc.	31,789	.....	.....
Lead and manufactures of.....	35,691	.....	.....
Leather and manufactures of.....	452,834	.....	.....
Lime	96,998	.....	.....
Malt	8,745	.....	.....
Marble, Stone and manufactures of..	8,045	.....	.....
Matches	31,454	.....	.....

Import Values from United States for 1908—Continued.

Articles.	Domestic Mdse.	Foreign Mdse.	
		Dutiable	Free
Musical Instruments	\$ 32,918	\$ 41	.....
Naval Stores	18,385	.....	.....
Nursery Stock	2,557	.....	.....
Oil Cloths	8,153	.....	.....
Oils; Animal, Mineral, Crude.....	741,827	.....	.....
Refined, etc.	373,065	.....	.....
Vegetable	36,933	1,905	\$ 12,319
Paints, Pigments and Colors.....	122,119	.....	.....
Paper and manufactures of.....	236,028	791	.....
Perfumery, etc.	8,936	.....	.....
Plated Ware	12,741	.....	.....
Provisions, etc., Beef Products.....	68,014	101	.....
Hog and other Meat Products..	263,471	.....	.....
Dairy Products	305,051	193	.....
Rice	4,821	.....	.....
Salt	9,812	.....	.....
Seeds	6,118	.....	.....
Shells	578	.....	.....
Silk and manufactures of.....	65,315	1,007	.....
Soap; Toilet and other.....	136,513	.....	.....
Spices . . . . .	.....	.....	64
Spirits, etc., Malt Liquors.....	103,508	872	.....
Spirits, distilled	118,844	13,721	.....
Wines	290,375	9,418	.....
Starch	11,094	.....	.....
Straw and Palm Leaf, man. of.....	23,400	38	.....
Sugar, Molasses and Confectionery..	140,791	14	.....
Tea . . . . .	.....	.....	15,549
Tin and manufactures of.....	49,473	.....	.....
Tobacco and manufactures of.....	458,725	2,806	.....
Toys	34,212	.....	.....
Trunks, Valises, etc.....	26,261	.....	.....
Varnish	5,221	.....	.....
Vegetables	222,012	3,024	.....
Vinegar	6,891	.....	.....
Wood and manufactures of.....	77,089	504	.....
Timber and unmanufactured....	34,316	.....	.....
Lumber, Shingles, etc.....	569,397	.....	.....
Doors, Sash, Blinds and all other	43,287	.....	.....
Furniture, n. e. s.....	131,300	.....	.....
Wool, manufactures of.....	302,898	.....	.....
Zinc and manufactures of.....	6,155	.....	.....
All other articles	126,172	901	.....
Total	\$14,638,717	\$ 399,438	\$ 37,800

Value Domestic Mdse. shipments to the United States from Hawaii for fiscal years ending June 30, 1907, and 1908.

Compiled from Monthly Summary of Commerce and Finance, Bureau of Statistics.

Articles	1907	1908
Animals	\$ 3,000	\$ 2,109
Art Works, Paintings, etc.	5,802	1,815
Beeswax	4,373	6,040
Books and printed matter.	13,091	9,732
Brass and manufactures of.	7,522	2,682
Breadstuffs	6,530	3,261
Carriages, etc., and parts of.	19,688	15,565
Chemicals, drugs, etc.	13,160	6,651
Coffee	129,249	157,180
Copper and manufactures of.	10,968	3,125
Cotton and manufactures of.	5,931	12,638
Earthenware, etc.	1,100	758
Fibers and textiles	14,997	9,827.
Fish	1,332	883
Fruits and nuts	393,979	797,186
Glass and glassware.	8,249	8,725
Hides and skins.	141,883	87,599
Honey	26,680	30,842
India Rubber, manufactures of.	3,268	2,656
Instruments for science purposes, etc.	2,034	7,077
Iron, steel and manufactures of.	3,881	4,696
Machinery and parts of.	53,030	12,990
All other manufactures of iron, etc.	41,234	54,065
Jewelry	22,997	19,975
Leather and manufactures of.	22,874	35,390
Marble and stone.	1,093	859
Meat and dairy products.	8,200	11,763
Molasses	355	20
Musical instruments and parts.	1,587	2,190
Oils, paints, varnish, etc.	989	16,105
Paper and manufactures of.	3,429	5,392
Rice	147,439	140,768
Silk, manufactures of.	4,762	3,475
Spirits, Wines, etc.	8,307	16,299
Straw and palm leaf, manufactures of.	2,579	1,419
Sugar, brown	26,260,002	38,603,138
Sugar, refined	832,995	1,212,924
Tobacco, manufactures of.	1,914	2,772
Toys	544	875
Vegetables.	1,921	7,898
Wood and manufactures of.	63,261	60,763
Wool, raw	54,548	58,133
Wool, manufactures of.	4,808	4,690
All other articles.	98,996	152,758
Total shipments domestic merchandise.	\$29,054,581	\$41,595,708
Total shipments foreign merchandise.	17,232	44,797
Total to United States.	\$29,071,813	\$41,640,505

Hawaii's Commerce with U. S. and Foreign Countries.

Total Import and Export Values for 1907 and 1908.

Compiled from Monthly Summary of Commerce and Finance, Bureau of Statistics.

Countries.	Imports.		Exports. *	
	1907	1908	1907	1908
Argentina.....		\$ 130,598	\$ 1,000	
Austria-Hungary.....	\$ 346			
Azores & Madeira Is.		1,249		
Belgium.....	3,572	26		
Canada.....	47,392	26,093	14,444	\$ 15,625
Great Britain.....	483,341	481,269	44,230	2,073
Germany.....	348,667	310,134	340	5,180
France.....	14,210	31,479		
Italy.....	382	2,730		5,305
Netherlands.....	5,676	3,947		
Norway.....	265	133		
Portugal.....	419			
Spain.....	3,919	1,292		
Sweden.....	961	443		
Chile.....	325,637	360,754		
China.....	4,129	8,007	3,600	3,865
East Indies.....	664,440	708,649	1,450	1,025
Hong Kong.....	296,975	324,107	994	8,881
Japan.....	1,557,441	1,874,670	141,240	541,554
Australasia.....	310,574	350,110	10,236	2,787
Oceania.....	71,856	64,904	2,520	2,258
Korea.....		61	9,714	227
Philippines.....	11,454	1,417	146	2,420
United States*.....	14,435,725	15,038,155	29,071,813	41,640,505
All other.....	53	327		6,440
Total.....	\$18,587,434	\$19,720,554	\$20,301,727	\$42,238,145

* Not including coin shipments.

Exports and Imports for fiscal year ending June 30, 1908.

Exports—Domestic produce to United States.....	\$41,595,708
Foreign produce to United States.....	44,797
Coin shipments to United States.....	3,776
Domestic produce to Foreign Countries.....	587,205
Foreign produce to Foreign Countries.....	10,435
Total export value.....	\$42,241,921

Imports—Domestic produce from United States.....	\$14,638,717
Foreign produce from United States.....	399,438
Coin shipments from United States.....	36,716
Produce from Foreign Countries.....	4,682,399
Total import value	\$19,757,270

**Quantity and Value of Principal Articles of Domestic Produce
Shipped to U. S. for the fiscal year ending June, 1908.**

Articles		Quantity	Value
Sugar, raw	pounds.....	1,054,395,987	\$38,603,138
Sugar, refined	"	23,174,650	1,212,924
Coffee, raw	"	1,310,432	157,137
Rice	"	3,038,624	140,768
Fibers .....	.....	.....	9,827
Fruits, green .....	.....	.....	160,944
canned .....	.....	.....	632,277
all other .....	.....	.....	3,473
Honey .....	.....	.....	30,842
Beeswax	pounds.....	21,293	6,040
Hides and skins.....	"	928,399	87,599
Wool, raw	"	359,413	58,133
Timber, lumber & unmnfrd wood..	.....	.....	18,912

Comparative Table Importations from Japan, 1902-1906.

Courtesy of Dr. A. Marques.

Articles.	1902-1903.	1903-1904.	1904-1905.	1905-1906
Sake and Wines.....	\$205,526	\$ 171,856	\$154,366	\$201,668
Rice and its flour....	236,076	446,121	222,686	285,194
Vegetables	92,273	87,424	79,502	94,095
Sauces	118,155	138,540	115,747	140,472
Cotton Wares.....	52,413	50,302	48,225	73,036
Fish	61,608	78,131	80,088	69,006
Breadstuffs	20,420	24,096	18,930	28,263
Woodwork	25,170	24,499	24,030	21,830
Silks	24,206	23,495	27,129	49,119
Tea	14,239	15,883	10,173	14,936
Provisions	2,035	2,130	796	1,072
Coal (bituminous)...	.....	5,466	38,449	67,703
All others.....	118,470	137,112	142,530	200,076
Total	\$970,591	\$1,205,055	\$962,651	\$1,247,470

Coast Line Distance of Hawaiian Islands.

Courtesy of W. E. Wall, Government Survey Office.

	MILES		MILES
Distance around Hawaii.....	297	Distance around Molokai.....	100
" " Oahu	177	" " Lanai.....	53
" " Maui	146	" " Niihau.....	48
" " Kauai.....	106	" " Kahoolawe..	30
Total Coast line distance around the islands 957 miles.			

Hawaiian Sugar Plantation Statistics.

Year	Sugar.		Molasses.		Total export Value.
	Pounds	Value.	Gallons.	Value.	
1875.....	25,080,182	\$ 1,216,388.82	93,722	\$ 12,183.85	\$ 1,228,572.68
1876.....	26,072,429	1,272,334.53	130,073	19,510.95	1,291,845.48
1877.....	25,575,905	1,777,529.57	151,462	22,719.30	1,800,248.87
1878.....	38,431,458	2,701,731.50	93,136	12,107.68	2,713,839.18
1879.....	49,020,972	3,109,566.65	87,475	9,622.52	3,119,185.91
1880.....	63,584,871	4,322,711.48	198,355	29,753.52	4,352,464.73
1881.....	93,789,483	5,395,399.54	263,587	31,630.44	5,427,020.98
1882.....	114,177,938	6,320,890.55	221,293	33,193.95	6,354,084.60
1883.....	114,107,155	7,112,981.12	193,997	34,819.46	7,147,800.58
1884.....	142,654,923	7,328,896.67	110,530	16,579.51	7,345,476.17
1885.....	171,350,314	8,356,061.94	57,941	7,050.00	8,363,111.94
1886.....	216,223,615	9,775,132.12	113,137	14,501.76	9,789,633.88
1887.....	212,763,647	8,694,964.07	71,222	10,522.76	8,705,486.83
1888.....	235,888,346	10,818,883.09	47,965	5,900.40	10,824,783.49
1889.....	242,165,835	13,089,302.10	54,612	6,185.10	13,095,487.20
1890.....	259,789,462	12,159,585.01	74,926	7,603.29	12,167,188.30
1891.....	274,983,580	9,550,537.80	55,845	4,721.40	9,555,258.20
1892.....	263,636,715	7,276,549.24	47,988	5,061.07	7,281,610.34
1893.....	330,822,879	10,200,958.37	67,282	5,928.96	10,206,887.33
1894.....	306,684,993	8,473,009.10	72,979	6,050.11	8,479,059.21
1895.....	294,784,819	7,975,590.41	44,970	3,037.83	7,978,628.24
1896.....	443,569,282	14,932,172.82	15,885	1,209.72	14,933,382.54
1897.....	520,158,232	15,390,422.13	33,770	2,892.72	15,393,314.85
1898.....	444,963,036	16,614,622.53	14,537	919.18	16,615,541.71
1899.....	545,370,537	21,898,190.97	11,455	358.55	21,898,549.52
1900*.....	344,531,173	13,919,400.21	120	10.00	13,919,410.21
1901**.....	690,882,132	27,094,155.00	93,820	4,615.00	27,098,770.00
1902.....	720,553,357	23,920,113.00	48,036	2,187.00	23,922,300.00
1903.....	774,825,420	25,310,684.00	10	1.00	25,310,685.00
1904.....	736,491,993	24,359,385.00	11,187	712.00	24,360,097.00
1905.....	832,721,637	35,112,148.00	26,777	1,282.00	35,113,430.00
1906.....	746,602,637	24,495,427.00	3,180	177.00	24,495,604.00
1907.....	822,014,811	27,692,997.00	6,917	355.00	27,693,352.00
1908.....	1,077,570,637	39,816,062.00	23	20.00	39,816,082.00

* Five and one-half months to June 14. ** Fiscal year ending June 30.

Nationality of Plantation Labor, 1906-1907.

	1906	1907		1906	1907
Americans	614	519	Japanese	25,879	30,303
Portuguese	3,310	3,746	Koreans	3,675	2,694
Other Europeans	456	1,124	Chinese	3,660	2,950
Hawaiians	1,742	1,241	Others	18	128
Porto Rican	1,949	1,871			
			Total	41,303	44,575

Hawaii's Annual Trade Balance, etc., from 1880.

Year.	Imports.	Exports.	Excess export Values.	Custom house Receipts.
1880.....	\$ 3,673,268.41	\$ 4,968,444.87	\$ 1,295,176.46	\$ 402,181.63
1881.....	4,547,978.64	6,885,436.56	2,337,457.92	523,192.01
1882.....	4,974,510.01	8,299,019.70	3,324,506.69	505,390.98
1883.....	5,624,240.09	8,133,343.88	2,509,103.79	577,332.87
1884.....	4,637,514.22	8,856,610.30	4,219,096.08	551,736.59
1885.....	3,830,544.58	9,158,818.01	5,328,273.43	502,337.38
1886.....	4,877,738.73	10,565,885.58	5,688,146.85	580,444.04
1887.....	4,943,840.72	9,707,047.33	4,763,206.61	595,002.64
1888.....	4,540,887.46	17,707,598.76	7,166,711.30	546,142.63
1889.....	5,438,790.63	13,874,341.40	8,435,560.77	550,010.16
1890.....	6,962,201.13	13,142,829.48	6,180,628.35	695,956.91
1891.....	7,439,482.65	10,258,788.27	2,819,305.62	732,594.93
1892.....	4,028,295.31	8,060,087.21	4,031,791.90	494,385.10
1893.....	4,363,177.58	10,818,158.09	6,454,980.51	545,754.16
1894.....	5,104,481.43	9,140,794.56	4,036,313.13	522,855.41
1895.....	5,339,785.04	8,474,138.15	3,134,353.11	547,149.04
1896.....	6,063,652.41	15,515,230.13	9,451,577.72	656,895.82
1897.....	7,682,628.09	16,021,775.19	8,339,147.10	708,493.05
1898.....	10,368,815.09	17,346,744.79	6,977,929.70	896,675.70
1899.....	16,069,576.96	22,628,741.82	6,559,164.86	1,295,628.95
1900*.....	10,231,197.58	14,404,496.16	4,173,298.58	597,897.14
1901**.....	24,964,693.43	29,342,697.00	4,378,003.57	1,264,862.78
1902.....	22,036,583.00	24,793,735.00	2,757,152.00	1,327,518.23
1903.....	13,982,485.00	26,275,438.00	12,292,953.00	1,193,677.83
1904.....	15,784,691.00	25,204,875.00	9,420,184.00	1,229,338.15
1905.....	14,718,483.00	36,174,526.00	21,456,043.00	1,043,340.38
1906.....	15,639,874.00	26,994,824.00	11,354,950.00	1,218,764.13
1907.....	18,662,434.00	29,303,695.00	10,641,261.00	1,458,843.48
1908.....	19,757,270.00	42,241,921.00	22,484,651.00	1,550,157.32

* Five and one-half months to June 14th. ** Twelve and one-half months to June 30, 1901. Imports from U. S. ports for 1901 estimated at \$22,000,000, and for 1902 at \$19,000,000.

Summary of Insurance Business, Territory of Hawaii, for the year 1907.

From Report of Insurance Commissioner.

Class.	Amount Written	Amount Premiums	Losses and Claims paid
Fire.....	\$23,270,292.95	\$ 442,361.19	\$ 37,512.67
Marine.....	32,022,898.43	166,601.04	20,805.87
Life.....	1,540,752.00	*498,416.82	75,910.53
Accident, etc.....	.....	17,119.18	2,278.28
Automobile.....	.....	658.30	.....
Surety and Fidelity.....	.....	17,972.52	.....
Liability.....	.....	7,479.85	1,598.55
Plate Glass.....	.....	1,403.01	387.30
Burglary.....	.....	51.00	17.00
Total.....	\$56,838,943.38	\$1,152,062.91	\$138,510.20

* Of this amount \$55,835.79 is new business and \$442,581.03 renewals.

**Table of Receipts, Expenditures, and Public Debt of Hawaii,
for Biennial Periods up to 1894, then Annually.**

(Latter years from Auditor's Report.)

Years.	Revenue.	Expenditures.	Cash Balance in Treasury.	Public Debt.
1856.....	\$ 419,288.16	\$ 424,778.25	\$ 28,096.84	\$ 22,000.00
1858.....	537,223.86	599,879.61	349.24	60,679.15
1860.....	571,041.71	612,410.55	13,127.52	128,777.32
1862.....	528,039.92	606,893.33	507.40	188,671.86
1864.....	538,445.34	511,511.10	22,583.29	166,649.09
1866.....	721,104.30	566,241.02	169,059.34	182,974.60
1868.....	825,498.98	786,617.55	163,576.84	120,815.23
1870.....	834,112.65	930,550.29	61,580.20	126,568.68
1872.....	912,130.74	969,784.14	56,752.41	177,971.29
1874.....	1,136,523.95	1,192,511.79	746.57	355,050.76
1876.....	1,008,956.42	919,356.93	89,599.49	459,187.59
1878.....	1,151,713.45	1,110,471.90	130,841.04	444,800.00
1880.....	1,703,736.88	1,495,697.48	338,880.44	388,900.00
1882.....	2,070,259.94	2,282,599.33	126,541.05	299,200.00
1884.....	3,092,085.42	3,216,406.05	2,220.42	898,800.00
1886.....	3,010,654.61	3,003,700.18	9,174.85	1,065,600.00
1888.....	4,812,575.96	4,712,285.20	109,465.60	1,936,500.00
1890.....	3,632,196.85	3,250,510.35	491,152.10	2,599,502.94
1892.....	3,916,880.72	4,095,891.44	312,141.38	3,217,161.13
1894.....	3,587,204.98	3,715,232.83	184,113.53	3,417,459.87
1894.....	1,972,135.43	1,854,053.08	69,225.76	3,574,030.16
1895.....	2,050,729.41	2,284,179.92	302,676.27	3,764,335.03
1896.....	2,383,070.78	2,137,103.38	315,193.16	3,914,608.35
1897.....	2,659,434.16	2,617,822.89	456,804.43	4,399,146.65
1898.....	2,709,489.12	2,299,937.57	740,280.21	4,457,605.85
1899.....	3,854,231.50	3,038,638.38	1,531,784.29	4,890,351.49
1900.....	2,772,871.87	3,727,926.28	624,471.25	4,226,374.61
1901.....	2,140,297.36	2,576,685.53	287,131.30	939,970.31
1902.....	2,473,172.81	2,382,968.90	77,914.36	1,093,970.31
1903.....	2,387,715.88	2,603,194.20	56,613.29	2,185,000.00
1904.....	2,415,356.33	2,844,054.81	68,592.03	3,317,000.00
1905.....	2,354,783.37	2,240,731.55	59,408.49	3,861,000.00
1906.....	3,320,998.90	2,512,675.89	335,331.37	3,818,000.00
1907.....	2,716,624.00	2,665,845.74	348,216.51	3,718,000.00
1908.....	2,551,522.21	2,508,001.51	391,737.19	3,979,000.00

Hawaii's Bonded Debt, June 30, 1907.

Stock A 5 per cent. Bonds (Act of 1896).....	\$ 20,000
Fire Claims Bonds issued.....	315,000
Public Improvement 4½% Bonds, 1903-04.....	1,000,000
Public Improvement 4¼% Bonds, 1904-05.....	1,000,000
Refund Bonds, 1905, 4%.....	600,000
Public Improvement 3½% Bonds.....	1,044,000
Total Bonds Outstanding.....	\$3,979,000

INTERNAL TAXES FOR BIENNIAL PERIODS 1888-1894; SINCE, ANNUAL.

Periods	Real Estate	Personal Property	Poll	Income	Ins'ance	Dogs	Ca'r'ges	Penalty and Costs	Roads Carts and Bicycles	School	Totals
1888.....	\$ 252,362	\$ 299,974	\$ 63,115	\$.....	\$ 6,279	\$ 11,985	\$11,835	\$.....	\$ 120,872	\$ 119,565	\$ 885,987
1890.....	339,390	329,968	69,116	.....	3,003	14,100	13,940	.....	132,285	131,160	1,032,963
1892.....	358,745	341,205	78,964	.....	4,150	13,660	14,628	.....	152,137	151,906	1,115,401
1894.....	338,894	213,126	78,990	.....	3,867	11,741	11,980	5,476	152,268	152,247	1,068,592
1894 9 months.	167,083	151,580	39,050	.....	1,856	4,698	4,427	3,922	74,891	75,082	522,583
1895.....	196,608	164,272	43,663	.....	1,803	5,971	5,425	7,297	84,183	83,470	592,692
1896.....	240,971	210,164	46,655	.....	1,837	6,302	5,889	7,255	90,297	89,443	698,844
1897.....	246,828	242,719	47,973	.....	974	7,313	5,849	10,375	101,858	95,814	759,703
1898.....	268,203	266,621	49,580	.....	2,185	6,248	5,717	8,476	105,814	98,974	811,818
1899.....	384,594	377,075	54,828	.....	2,883	6,141	6,253	10,155	116,374	109,814	1,068,117
1900.....	440,265	487,078	67,119	.....	3,224	5,377	7,241	9,280	141,342	134,232	1,295,158
1901.....	521,451	571,964	59,829	279,743	3,810	4,589	8,397	8,984	108,820	101,258	1,659,854
1902.....	560,111	584,112	46,366	192,506	4,663	3,864	9,072	11,345	100,684	92,754	1,605,460
1903.....	600,241	593,288	49,490	187,497	4,681	4,404	9,864	13,267	107,650	98,980	1,678,362
1904.....	615,127	562,382	49,531	155,786	56	4,543	9,427	13,669	107,885	99,062	1,617,468
1905.....	603,009	667,655	49,020	326,733	.....	5,161	9,670	14,739	107,156	98,040	1,617,468
1906.....	651,838	617,240	59,069	146,756	.....	5,382	*1,240	18,876	129,817	100,138	1,721,356
1907.....	639,346	628,904	46,818	227,727	.....	6,245	*2,220	16,885	124,474	93,636	1,786,255

* Automobiles.

Annual Taxes, from 1896, showing per capita rate collected.

	Taxes collected	Per capita*		Taxes collected	Per capita*
1896	\$ 698,844	\$ 6.32	1902	1,605,460	10.42
1897	759,707	6.54	1903	1,678,362	10.89
1898	811,818	6.45	1904	1,617,468	10.50
1899	1,068,117	7.11	1905	1,941,183	12.60
1900	1,295,158	8.41	1906	1,721,356	11.17
1901	1,659,854	10.77	1907	1,786,255	11.60

SUMMARY OF METEOROLOGICAL OBSERVATIONS, 1907-1908.

Compiled from U. S. Weather Bureau Records, by Wm. B. Stockman, Section Director.

(Continued from preceding Annuals.)

MONTH	BAROMETER		RAIN-FALL	REL. HUM.		MEAN TEMPERATURE						ABSO. HUM.	Wind Force	
	8 a.m.	8 p.m.		8 a.m.	8 p.m.	Min.	Max.	6 a.m.	2 p.m.	9 p.m.	Mean of Max. and Min.				Gr. to Cu. ft.
July	30.00	29.98	0.97	64	70	73.2	82.6	74	81	76	77.9	6.988	3.6	8.6
August	29.99	29.96	1.52	68	73	73.4	82.6	75	81	76	78.0	7.297	5.1	9.1
September	29.95	29.94	0.30	68	72	73.8	83.5	75	82	77	78.6	7.421	4.2	7.4
October	30.00	29.99	1.04	66	73	72.3	81.5	73	80	75	76.9	6.973	4.6	8.2
November	30.05	30.03	2.05	67	73	69.5	79.3	71	77	73	74.4	6.346	5.7	9.5
December	30.04	30.01	2.00	70	76	69.4	79.0	71	78	72	74.2	6.618	4.2	6.8
January	30.11	30.08	0.50	62	69	66.3	76.8	68	76	70	71.6	5.187	4.1	8.6
February	30.07	30.05	3.42	67	74	67.0	76.8	69	75	70	71.9	5.956	5.8	7.6
March	30.02	30.00	8.09	73	77	67.6	76.9	69	75	71	72.2	6.381	6.5	7.2
April	30.08	30.06	0.60	66	69	67.9	77.5	70	76	71	72.7	5.884	6.0	10.2
May	30.10	30.08	0.35	64	71	70.3	79.8	71	79	73	75.0	6.362	5.5	8.8
June	30.09	30.07	0.39	63	70	70.7	80.0	72	79	73	75.4	6.175	5.6	9.0
Year	30.04	30.02	21.23	66	72	70.1	79.7	72	78	73	74.9	6.466	5.1	8.4

TABLE OF RAINFALL, Principal Stations.

Compiled from Weather Bureau Reports.

Stations	Observer	1907					
		July	Aug.	Sept.	Oct.	Nov.	Dec.
HAWAII							
Waiakea	C. C. Kennedy	9.43	31.87	25.06	19.94	10.89	4.51
Hilo (Town)	L. C. Lyman...	10.41	37.77	26.28	16.86	10.74	5.45
Kaumana	J. E. Gamalielson ..	15.26	51.11	24.36	19.46	13.17	6.66
Pepeekeo	A. C. Ratray...	9.76	28.31	24.76	14.70	10.20	5.04
Hakalau	J. M. Ross.....	9.23	33.34	37.31	14.47	12.53	6.50
Laupahoehoe	E. W. Barnard.	11.99	33.64	27.70	10.43	8.70	4.74
Ookala	W. G. Walker.	11.23	30.38	20.35	8.86	7.57	3.73
Kukaiiau	E. Madden.....	9.26	24.52	13.40	7.19	4.11	2.74
Paauhau	Jas. Gibb.....	8.84	18.42	7.68	6.43	3.76	1.75
Honokaa	P. V. Knudsen.	7.92	17.85	7.22	8.15	4.86	3.20
Waimea	Jas. McCrosson	4.68	10.29	7.03	4.43	1.28	2.95
Kohala	Dr. B. D. Bond	5.37	8.87	7.05	4.98	6.15	1.70
Holualoa	L. S. Aungst..	8.91	7.35	6.31	5.87	3.46	1.58
Healakekua	Rev. S.H. Davis	9.63	8.35	9.60	6.18	3.60	2.80
Naalehu	C. Wolters.....	2.07	11.64	11.49	4.38	0.63	0.77
Pahala	Haw. Agr. Co.	1.02	12.66	7.90	8.59	1.03	0.14
Volcano House.	Geo. Lycurgus.	7.10	23.70	5.28	6.40	4.80	2.15
Olaa (17 miles) ..	Olaa Sugar Co.	18.79	51.33	22.97	20.25	15.19	8.93
Kapoho	H. J. Lyman...	4.42	25.28	15.53	9.02	7.03	3.83
MAUI							
Haleakala Ranch	L. von Tempsky...	3.27	10.34	2.98	4.85	4.48	0.86
Puomalei	A. McKibbin..	5.70	15.96	6.19	7.52	7.99	1.84
Makawao	F. W. Hardy...	7.90	14.39	5.81	9.88	7.46	1.52
Kula	Mrs. D. von Tempsky	1.17	6.40	4.45	1.11	0.16	0.22
Haiku	D. D. Baldwin	6.95	15.91	6.55	7.43	9.29	1.84
Keanae Valley	W. F. Pogue...	21.00	56.14	21.50	23.55	22.16	6.98
Nahiku	C. O. Jacobs...	10.63	33.96	15.70	13.71	13.70	6.44
Wailuku	Bro. Frank.....	0.72	3.02	1.58	1.45	0.85	0.62
OAHU							
Honolulu	U. S. Weather Bureau	0.97	1.52	0.30	1.04	2.05	2.00
U. S. Exp. Stn.	D. L. Van Dine	4.18	4.76	1.32	3.19	6.09	3.63
Kinau Street....	W. R. Castle...	1.43	1.69	0.58	0.96	2.84	2.14
Manoa	F. N. Parker...	5.05	11.72	4.67	4.65	11.82	7.03
Nuuanu Ave.....	W. W. Hall....	2.93	3.68	0.92	1.95	4.04	3.31
Electric Lt. St.	A. Walker	5.94	5.36	4.18	3.11	4.53	4.40
Luakaha	L. A. Moore....	11.93	24.83	13.68	11.75	9.78	10.82
Waimanalo.....	A. Irvine.....	1.46	2.95	1.75	1.33	2.50	4.38
Maunawili.....	Jno. Herd.....	3.72	10.45	8.83	5.85	5.02	6.39
Ahuimanu.....	H. R. Macfarlane.	4.99	9.72	7.92	14.48	4.63	6.79
Kahuku.....	R. T. Christophersen.	2.43	2.94	2.69	2.96	1.80	4.08
Ewa Plantation	R. Muller.....	0.96	0.52	0.63	0.38	0.30	2.62
Wahiawa.....	H. C. Brown...	2.07	4.77	6.30	2.57	3.16	5.43
Waiawa	A. Lister.....	5.13	.....	.....	2.30	4.08	7.48
Waimalu.....	Hon. Plan. Co.	1.28	2.50	1.90	0.94	2.79	4.47
KAUAI							
Grove Farm.....	G. N. Wilcox...	3.09	7.58	1.88	3.06	2.90	4.28
Kealia	A. W. Peterson	2.63	3.09	1.09	1.34	2.16	3.70
Kilauea,	L. B. Boreiko..	6.92	8.74	2.65	3.37	4.21	6.89
Hanalei	E. G. K. Deverill	.....	25.72	8.16	4.31	13.58	14.37
Eleele	McBryde Sugar Co.	1.66	2.10	0.60	0.68	1.11	1.15
Kukuiula.....	F. L. Zoller...	3.21	5.35	0.79	0.93	1.91	2.10
Waiawa	A. F. Knudsen.	0.65	0.50	0.28	0.74	0.32	0.37

Throughout the Hawaiian Islands, 1907-08.

By Wm. B. Stockman, Section Director. Continued from last Annual.

Locality	Feet Elev.	1908						
		Jan.	Feb.	Mar.	April	May	June	Annual
HAWAII								
Waiakea.....	50	7.84	22.30	5.43	15.69	8.87	6.01	167.84
Hilo.....	100	8.98	22.00	8.05	15.34	9.18	6.28	177.34
Kaumana.....	1050	12.13	21.73	8.46				
Pepeekeo.....	100	7.09	22.91	6.69	14.21	5.63	5.31	154.61
Hakalau.....	200	7.45	24.03	6.50	18.26	8.25	6.32	184.19
Laupahoehoe.....	500	5.87	14.29	5.32	13.14	9.25	5.71	150.78
Ookala.....	400	4.64	10.38	3.49	10.88	8.22	4.74	124.47
Kukaiau.....	250	3.05	7.25	2.12	8.23	3.67	2.96	88.50
Paauhau Mill.....	300	3.13	4.52	6.71	3.91	1.82	1.64	68.61
Honokaa.....	470	3.63	3.80	5.87	4.14	2.05	1.91	70.60
Waimea.....	2720	1.85	1.49	1.03	2.83	3.08	2.61	33.55
Kohala Mission.....	521	1.75	3.20	2.55	3.43	4.57	5.23	54.85
Holualoa.....	1350	4.48	4.08	4.48	5.40	4.87	3.91	60.70
Kealakekua.....	1580	1.83	4.15	4.32	7.04	5.75	3.60	66.85
Naalehu.....	650	1.33	4.12	4.94	2.45	0.40	0.24	44.46
Pahala.....	850	1.16	6.73	8.67	2.05	0.04	0.00	49.99
Kilauea Crater.....	4000	4.50	6.75	4.60	6.70	2.20	1.40	75.58
Olaa, Puna.....	1530	12.91	25.78	8.17	28.06	17.83	9.95	240.16
Kapoho.....	110	5.17	11.27	6.70	9.62	4.53	3.80	106.20
MAUI								
Haleakala Ranch.....	2000	2.80	3.17	4.04	1.03	0.11	0.00	37.93
Puuomalei.....	1400	2.36	6.33	5.75	5.19	0.00	2.85	67.68
Makawao.....	1700	3.33	4.95	5.54	2.89	0.58	0.58	64.83
Erehwon.....	4000	0.35	2.33	6.83	0.00	0.30	0.16	23.48
Haiku.....	700	2.51	7.69	3.88	4.77	3.07	4.83	74.72
Keanae.....	1000	9.11	24.97	8.89	24.90	12.92	13.78	245.90
Nahiku.....	700	5.75	16.08	6.13	11.45	9.90	8.75	152.20
Wailuku.....	250	0.84	0.71	2.79	0.88	0.11	0.05	13.62
OAHU								
U. S. W'th'r B're'u.....	108	0.50	3.42	8.09	0.60	0.35	0.39	21.23
Kewalo-uka.....	350	1.33	6.72	8.85	3.54	1.38		
Kinau Street.....	50	0.26	3.15	9.54	0.85	0.40	0.35	24.19
Woodlawn Dairy.....	285	2.57	7.92	9.06	6.45	3.84	5.41	80.19
Nuuanu Avenue.....	50	1.14	5.14	9.09	2.27	0.91	2.12	37.50
Nuuanu Elec. St'n.....	405	1.58	8.48	9.35	3.76	3.20	4.55	58.44
Nuuanu Wat'r W's.....	850	4.44	16.48	15.10	9.11	12.43	11.25	151.60
Waimanalo.....	25	1.55	6.81	15.34	0.63	1.94	0.74	41.38
Maunawili.....	250	2.29	7.14	17.27	2.67	6.05	3.15	78.83
Ahuimanu.....	350	2.34	11.20	21.84	1.65	4.03	4.13	93.72
Kahuku.....	25	0.86	5.29	13.39	1.80	0.87	0.83	39.94
Ewa.....	50	0.03	1.55	9.26	0.06	0.23	0.14	16.68
Wahiawa.....	870	0.67	5.63	10.97	1.12	1.75	2.62	47.09
Waiawa.....	675	0.80	3.12	12.36	2.24	1.75	3.15	
Ewa.....	200	0.24	4.49	10.89	1.11	0.76	0.71	32.06
KAUAI								
Lihue.....	200	0.87	6.45	18.60	2.79	2.58	1.42	55.50
Kealia.....	15	0.85	4.91	15.03	2.89	1.75	1.05	40.49
Kilauea.....	342	1.75	6.34	11.46	4.21	3.47	2.72	62.73
Hanalei.....	10	2.43	16.74	15.91	12.97	7.85	8.12	
Eleele.....	150	0.21	2.31	11.41	1.62	0.74	0.75	24.34
Koloa.....	100	0.00	4.28	14.15	3.03	1.32	1.13	38.20
Waimea.....	30	1.08	1.65	15.73	0.38	0.46	0.00	22.60

TABLE OF ANNUAL LICENSE FEES.

Territory of Hawaii.

<i>Alcohol</i>	\$ 50.00	<i>Hotel and Restaurant</i>	50.00
<i>Awa</i> —Honolulu	500.00	<i>Insurance Agent</i>	2.00
Hilo, Wailuku or La-		<i>Kerosene Storage</i>	200.00
haina	100.00	<i>Lodging and Tenement House</i>	2.00
All other	50.00	<i>Laundry</i>	25.00
<i>Auction</i> —Honolulu	600.00	<i>Livery Stable</i> —Honolulu	50.00
All other	15.00	All other	25.00
<i>Banking</i> —Honolulu	750.00	<i>Liquor</i> —1st class, wholesale..	1000.00
Hilo	500.00	2nd class, retail saloon or	
All other	250.00	hotel	750.00
<i>Billiard</i> —each table	25.00	Restaurant	500.00
<i>Bowling Alley</i> —each alley..	25.00	For premises outside 5	
<i>Beef Butcher</i> —"Slaughter and		mile radius from 1st	
Sell," Honolulu	100.00	to 3d class postoffice..	250.00
All other	20.00	3rd class, not over 3 days,	
<i>Beef Butcher</i> —"Sell"	10.00	per day	15.00
<i>Boat</i> —With 4 or more oars..	8.00	4th class—wine	5.00
With less than 4 oars...	4.00	5th class—manufacturing.	5.00
<i>Boatman</i>	1.00	<i>Milk</i>	2.50
<i>Barber</i>	10.00	<i>Merchandise</i>	25.00
<i>Brewery</i>	250.00	— Broker	100.00
<i>Certificate of Authority</i>	10.00	— Peddler	50.00
<i>Car License Tax</i> —per car....	10.00	<i>Notary Public</i> —Honolulu	10.00
<i>Custom House Broker</i>	50.00	All other	5.00
<i>Collection Agency</i>	25.00	<i>Pork Butcher</i> —"Sell"	10.00
<i>Dray, Wagon, etc.</i>	2.50	— "Slaughter and Sell,"	
<i>Driver</i>	1.00	Honolulu	40.00
<i>Dyeing or Cleaning, etc.</i>	25.00	All other	20.00
<i>Emigrant Agent</i>	500.00	<i>Peddling Cake</i>	25.00
<i>Employment Agency</i>	25.00	<i>Pawnbroker</i>	50.00
<i>Foreign Corporation</i>	300.00	<i>Public Show</i> —per show.....	5.00
<i>Farrrier and Horse-shoer</i>	5.00	<i>Poisonous Drug</i>	50.00
<i>Fishing Boat</i>	5.00	<i>Second Hand Dealer, etc.</i>	25.00
<i>Garage</i> —Honolulu	50.00	<i>Stock and Share</i>	100.00
All other	25.00	<i>Steam Laundry</i>	50.00
<i>Hack and Passenger Vehicle</i>		<i>Social Club Tax</i>	200.00
—per passenger	1.00		

Seating capacity of principal Churches, Halls and Places of Amusement—Honolulu.

Roman Catholic Cathedral, Fort street	1,500
Hawaiian Opera House, King street	1,000
Kawaiahao Church (Native), King street	1,000
The Orpheum, Fort street	945
Central Union Church, Beretania street	850
St. Andrew's Cathedral (Episcopal), Emma street	800
Chas. R. Bishop Hall, Punahou Preparatory Building	600

NOTABLE TRIPS OF PACIFIC OCEAN STEAMERS.

TRIP.	MILES.	STEAMER.	DATE.	D.	H.	M.
San Francisco to Honolulu,	2100	China	Aug., 1899	5	9	55
" " "	2100	Korea	Jan., 1903	4	22	15
" " "	2100	Siberia	Aug., 1905	4	19	20*
Honolulu to San Francisco,	2100	Tenyo Maru	June, 1908	4	18	50*
" " "	2100	China	Nov., 1902	5	2	16
" " "	2100	Nippon Maru	Jan., 1900	5	2	21
San Francisco to Yokohama,	4764	China	Oct., 1903	9	4	17*
Yokohama to San Francisco,	4537	Korea	Sept., 1905	10	11	0
" " "	4537	Siberia	Oct., 1905	10	10	28*
Yokohama to Honolulu,	3400	China	Dec., 1897	8	6	15*
" " "	3400	Coptic	Feb. 1902	9	2	17
San Francisco to Sydney,	7297	Alameda	Dec., 1895	21	10	0*
Auckland to Sydney,	1286	Sonoma	Jan., 1902	3	8	40*
Auckland to Honolulu,	3810	Mariposa	April, 1882	11	10	0*
" " "	3810	Alameda	July, 1897	11	10	35
Sydney to Auckland,	1286	Zealandia	Dec., 1890	3	20	51*
Honolulu to Samoa,	2279	Mariposa	Jan., 1886	6	7	45
" " Victoria,	2342	Warrimoo	July, 1896	6	22	19
" " "	2342	Manuka	June, 1904	6	14	50*
Victoria to Honolulu,	2360	Warrimoo	Jan., 1896	7	1	9
" " "	2360	Maheno	Aug., 1906	6	12	0*
Vancouver to Sydney,	6999	Warrimoo	Nov., 1895	20	15	17*
Honolulu to Sydney,	4865	Manuka	July, 1904	13	16	55†
Sydney to Honolulu,	—	Miowera	Aug., 1906	14	0	30
" " "	4865	Manuka	July, 1905	14	17	12†
" " "	4865	Maheno	April, 1906	13	22	50†*
Sydney to Vancouver,	6670	Warrimoo	April, 1896	21	4	23*

* Best record trips.

† Including all stops.

Clipper Passages between Coast and Island Ports.

- 1852—Ship Challenge, 8 days from San Francisco to Honolulu.
 1855—Ship Phoenix, 8 days and 17 hours from San Francisco.
 1859—Ship Black Hawk, 9 days and 9 hours from San Francisco.
 1861—Ship Fair Wind, 8 days and 17½ hours from San Francisco.
 1861—Bark Comet, 10 days 19 hours from Honolulu to San Francisco.
 1862—Ship Storm King, 9 days and 9 hours from San Francisco.
 1879—Schooner Claus Spreckels, 9½ days from San Francisco to Kahului.
 1880—Schooner Jessie Nickerson, 10 days from Honolulu to Humboldt.
 1881—Brgtne. W. G. Irwin, 8 days and 17 hours from S. F. to Kahului.
 1884—Schooner Emma Claudina, 9 days and 20 hours from Hilo to S. F.
 1884—Schooner Rosario, 10 days from Kahului to San Francisco.
 1884—Brgtne. Consuelo, 10 days from Honolulu to San Francisco.
 1886—Bark Hesper, 9½ days from Honolulu to Cape Flattery.
 1893—Bktne. Irrmgard, 9 days and 16 hours from San Francisco.
 1893—Bktne. S. G. Wilder, 9 days and 14 hours from San Francisco.
 1898—Bark Rhoderic Dhu, 9½ days from Hilo to San Francisco.
 1898—Ship S. P. Hitchcock, 9 days 7 hours from San Francisco.
 1898—Bark S. C. Allen, 9½ days from San Francisco.
 1902—Bktne. Lahaina, 12½ days from Eleele, Kauai, to Portland, Ore.
 1903—Bark Annie Johnson, 8 days and 18 hours from San Francisco.
 1905—Bark R. P. Rithet, 8 days from Honolulu to San Fran. (in March).

RECORD TRIPS BETWEEN HAWAIIAN AND DISTANT PORTS.

To or from Honolulu unless otherwise stated.

[Revised from last issue.]

- 1846—Am. schr. Kamehameha III, 116 days from Boston.
- 1852—Am. sh. R. B. Forbes, 99 days from Boston.
- 1853—Am. sh. R. B. Forbes, 17 days to Hongkong.
- 1853—Am. sh. Sovereign of the Seas, 83 days to New York.
- 1853—Rus. wh. bk. Suomi, 13 days from Sitka.
- 185...*—Am. schr. Harriet, 27 days to Newcastle, N. S. W.
- 1854—Am. sh. Golden Fleece, 100 days to New Bedford.
- 1854—Am. sh. Skylark, 104 days to New Bedford.
- 1854—Am. sh. N. B. Palmer, 81 days to New York.
- 1854—Am. schr. Lady Jane, 26 days from Callao.
- 1854—Am. schr. Sovereign (Ka Moi), 120 days from New London.
- 1854—Am. sh. Shooting Star, 83 days to New London.
- 1857—Br. sh. Kamehameha IV, 116 days from Liverpool.
- 1858—Am. sh. John Land, 97 days to New Bedford.
- 1858—Am. brg. Josephine, 103 days from New York.
- 1858—Am. schr. Vaquero, 27 days to Melbourne.
- 1858—Am. schr. Vaquero, 36 days from Melbourne.
- 1859—Am. brg. Josephine, 6 days 13 hours to Jarvis Island.
- 1859—Am. brg. Josephine, 8 days 14 hours from Jarvis Island.
- 1859—Am. sh. Ella & Eliza, 14 days from Puget Sound.
- 1860—Am. bk. Behring, 89½ days to New Bedford.
- 1860—Am. schr. Nettie Merrill, 118 days from New York.
- 1860—Am. sh. E. F. Willets, 89½ days from Lahaina to New Bedford.
- 1863—Br. sh. Jasper, 13 days from Victoria, B. C.
- 1864—Am. sh. Dreadnaught, 82 days to New Bedford.
- 1865—Haw. bk. R. W. Wood, 113 days from Bremen.
- 1865—Br. sh. Golden West, 32 days from Hongkong.
- 1866—Br. sh. Sailor's Home, 29 days 18 hours from Shanghai.
- 1867—Am. brg. Hesperian, 13 days from Tahiti.
- 1868—Am. brg. Morning Star, 11½ days from Marquesas.
- 1868—Am. sh. Syren, 105 days from Boston.
- 1868—Haw. bk. R. C. Wyllie, 115 days from Bremen; also in 1874.
- 1869—Am. sh. Lorenzo, 19½ days from Yokohama.
- 1871—Haw. bk. Ka Moi, 107 days from London.
- 1871—Am. bk. Agate, 34 days from Newcastle.
- 1873—Am. sh. Puritan, 16 days from Portland, Ore.
- 1875—Am. bktn. Jane A. Falkenberg, 13½ days from Astoria.
- 1875—Am. bktn. Jane A. Falkenberg, 16 days from Portland, and again in 1878.
- 1878—Am. bk. J. W. Seaver, 33 days from Newcastle via Tahiti.
- 1878—H. I. M. S. Cristoforo Colombo, 12 days from Tahiti.
- 1878—Br. bk. Glencoe, 123 days from Glasgow.
- 1878—Br. sh. Benlidi, 99 days from London.
- 1878—Br. sh. City of Perth, 115 days from Liverpool.
- 1879—Br. bk. Lalla Rookh, 122 days from Glasgow.
- 1880—Haw. schr. Kauikeaouli, 13 days 17 hours from Port Townsend.
- 1881—Nor. bk. Beta, 113 days from Drammen to Maalaea Bay, Maui.
- 1881—Br. bk. Oberon, 109 days from Liverpool.

* The correct year of this reported passage is not of Hawaiian record; press references simply mention it as early in the "fifties."

- 1893—Am. bk. Amy Turner, 109 days from New York.
 1895—Am. bk. Fresno, 14 days 10 hours from Port Townsend.
 1896—Am. sh. Henry B. Hyde, 102 days from New York.
 1898—Am. bktn. Otterspool, 109 days from Liverpool.
 1899—Ger. sh. Marie Hackfeld, 105 days from Hamburg.
 1901—Haw. bk. Fooohng Suey, 106 days from New York.
 1902—Am. sh. Erskine M. Phelps, 97 days from Norfolk, Va.
 1905—Ger. sh. Herzogin Sophia Charlotte, 107 days from Bremen.
 1905—Ger. sh. Herzogin Sophia Charlotte, 27 days to Sydney.
 1905—Am. sh. John Ena, 22 days 22 hours from Shanghai to Hilo.
 1906—Br. sh. Star of Bengal, 33 days from Newcastle.
 1906—Am. sh. John Ena, 99 days to Delaware Breakwater from Hilo.
 1907—Am. sh. Erskine M. Phelps, 101 days to Delaware Breakwater.
 1907—Ger. sh. Herzogin Cecilie, 107 days from Leith.
 1908—Am. schr. Helene, 30 days to Newcastle, N. S. W.

SOME NOTED INTER-ISLAND TRIPS.

- 1858—Haw. schr. Maria, 12 hours from Honolulu to Lahaina.
 1857—Haw. schr. Ka Moi, 8 hours from Lahaina to Honolulu.
 1857—Haw. sch. Liholiho, 11 hours from Kohala Pt. to Honolulu.
 1858—Haw. schr. Mary, 17 hours from Kawaihae to Honolulu.
 1866—Haw. schr. Alberni, 18 hours from Hilo to Honolulu.
 —Am. wh. sh. Josephine, 17 hours from Hilo to Honolulu.
 1868—Haw. schr. Maria, 32 hours from Hono. to Hilo (in light wind).
 1869—Haw. schr. Pauahi, 24 hrs. from Hilo to Honolulu (wharf to wharf).
 1862—Haw. schr. Nettie Merrill, 7 hours 10 min. from Lahaina to Honolulu.
 1860—Haw. schr. Nettie Merrill, 11 hours from Honolulu to Lahaina.
 1881—Am. schr. Claus Spreckels, 7 hours from Kahului to Honolulu.

Arrivals and Departures of Aliens, Honolulu, for Fiscal Year Ending June 30, 1908.

Nationality.	Arrivals.	Departures.
Japanese	8,524	4,391
Chinese	149	816
Korean	8	273
Spanish	48	....
Portuguese	1,130	6
English	176	121
East Indian	130	....
Scotch	52	15
German	30	17
All other	48	13
Total	10,295	5,652

Estimated Japanese Population, June 30, 1908.

Estimate July 1, 1907, as per last ANNUAL	74,590
Excess of arrivals over departures to June 30, 1908	4,133
Excess of births over deaths to June 30, 1908	1,534
Total	80,257

HEIAUS AND HEIAU SITES THROUGHOUT THE HAWAIIAN ISLANDS.

OMITTING KOA'S, OR PLACES OF OFFERING TO KUULA.

Completing the series which began in the ANNUAL of 1907.

ISLAND OF MAUI.

Names.	Location and Remarks.
Luakona.....	Near Kapaulu, Lahaina; built by Hua-a-Pohaku-kaina. Site now lost.
Waie.....	Near Kapaulu, Lahaina; built by Hua-a-Pohaku-kaina. Fragments of foundation now only to be seen.
Apahua.....	Wainee, Lahaina. Credited to Hua-nui, about 50 years later than the above; fragments of foundation only remain.
Halulukoakoa.....	Lahaina, corner of coconut grove and ahupuaa of Wahikuli, of coral construction.
Wailehua.....	Lahaina, in ahupuaa of Makila, at shore, about 130x80 ft.; built in time of Kauhi-ai-moku-a-kama, son of Kekaulike, about 1738.
Halekumukalani.....	Lahaina, in ahupuaa of Halekaa. A small heiau only.
Pihana.....	Wailuku, near end of coral and sand ridge, one-half mile from the sea; about 300x120 ft. in size; walls in complete ruins showing foundations massive.
Halekii.....	Wailuku, some 300 ft. to N. E. of Pihana, and about 100 ft. square in size.
Kaluli.....	Wailuku, at Puuohala. Repaired in time of Kahakili; Kaleopuupuu its priest.
Malumaluakua.....	Wailuku. No particulars gathered of these heiaus
Keahukii	further than that nearly all of the Wailuku
Olokua	temples, with the Kapokea one of Waihee,
Olopio	are named among those consecrated by Liholiho during a year's stay en route to Oahu,
Malena	preceding the peleleu fleet.
Kealakaihonua.....	Kapokea, Waihee, the heiau of Koi, prominent in Kahakili's staff; priest of the Kaleopuupuu order, and leader of the murderous attack on the officers of the Dædalus.
Koihale.....	Waihee, a medium sized heiau of about 90 ft. square, still to be seen.

- Wawaekaaaka..... At Puhauolu, Waihee, said to date from Kahekili's time, long ago demolished, save a mound of stones which mark its site.
- Kukuipuka..... Waihee, the place of refuge for West Maui as also heiau.
- Nukukahi..... Waiehu; of this heiau nothing now remains but a heap of stones.
- Kailua..... Makawao, one-half mile west of Makawao-Wailuku road; about 80x50 ft. in size; its ruins yet to be seen.
- Kula, Makawao, on Grant 3085, M. Previer. No particulars obtained further than it is still standing.
- Kanemalohemo..... Popoiwi, Kaupo. Heiau pookanaka, built in terraces by Kekaulike about 1730, covering two acres; still in fair condition.
- Loaloa..... Kumunui, Kaupo. Built by Kekaulike about 1730.
- Puumaka-a..... Kumunui, Kaupo. A noted heiau of pookanaka class, built by Kekaulike. These three Kaupo heiaus were consecrated by Liholiho in his tour for this service about 1801.
- Honuaula..... Kauwika, Hana. A medium sized heiau 120x70 ft. of which portions of foundation only now remain.
- Kuawalu..... Kauwika, Hana. This and Honuaula is credited to Hua-a-Pohukai.
- Wananalua. A war heiau, built by Hua-a-Pohukai prior to his raid of Hawaii.
- Kaniomoku..... Hana. An ancient heiau and place of refuge.
- Napua..... Kaumakani, Kipahulu.
- Poomanini..... Puaaluu, Kipahulu, near road to Hana; all destroyed.
- Maulili..... Kuikuiula, Kipahulu, situate about a mile above the Kipahulu Mill; of pookanaka class and one of those consecrated by Liholiho.
- Kanekauila..... Kakalahale, Kipahulu, on site of present Catholic church premises; a built-up platform structure.
- Paokahi..... Leleakea, Kipahulu; built in the time of Heleipawa.
- Leleiwai..... Koolau. A sacred shrine situate near the shore; visited by Kamehameha III. on his first royal progress.
- Pakanaloe..... Keanae. A war heiau dedicated to Kanehekili.
- Paliuli
- Kaluanui
- Makehau
- Kuikuiaupuni
- No particulars learned of these Keanae temples.

ISLAND OF MOLOKAI.

Names.	Location and Remarks.
Iliiliopai.....	Mapulehu. Of large size, about 268x85 ft., the eastern end having four terraces, and stands 20 feet high at east and 10 feet high at west end; of platform character and luakini class; built prior to the time of Kupa, chief of Molokai. Kamalo its priest. Subsequently Mo-i, the famous seer, was its high priest. Still in fair condition.
Kupukapakea.....	Wailau, Koolau. Consecrated in 1779 by Kahahana.
Maniniaiake.....	Pelekunu. A prominent heiau of ancient times; little if anything of which now remains.
Kekilikaha.....	Pelekunu. A platform heiau of small size, about 30x50 feet and but three feet high.
Kakakoililani.....	Waialua.
Weloka.....	Waialua, valley, on hill Weloka, about 40x60 feet; in partial ruins. Noted as the place where Kamehameha-nui of Maui was reared.
Pakui.....	Between Ualapue and Manawai; of luakini class; oblong; of about one-fourth acre in area; of traditional Menehune construction and puuhonua character; dedicated to Hina. Destroyed in the time of Kamehameha I.
Kumuko'a.....	Manawai. A truncated pyramidal constructed heiau, 175x60 feet, 20 feet high at its highest part, terraced; but without important subdivisions.
Puuolelo.....	Manawai. A small walled-in type of heiau, below Kumuko'a.
Kahokukano.....	On ridge between Manawai and Kahananui valleys. A heiau of large size and sacrificial class.
Kalanonakukui.....	Kahananui. A heiau some 80x100 feet in size, with walls six feet high; of husbandry class.
Puupapai.....	Kaunakakai. An important heiau of olden time and of large size; entirely removed a few years ago and its stones used to build the pier.
Mana.....	Halawa. A truncated pyramidal heiau 60x120 feet in size and 20 feet high.
Alili.....	Halawa. A small alleged heiau; probably only a shrine.
Akauhale.....	Halawaiki. A small heiau 20x30 feet, built up some six feet or so in corner of a walled space about 150x125 feet. Of doubtful class.

-Halawa. Entirely removed; referred to as an important sacrificial heiau in its time.
- Ka Hoonoho.....Apuhi Pohakupili. An enclosed heiau 75x125 feet, built up some 8 feet high. Class unknown.
- Kahahaku.....Moanui valley, about 150 yards from the beach; 35x60 feet in size.
- Kaulahea.....Near Mapulehu. A rain heiau.
- Kihakamanu.....Kalae. A heiau of large size now in ruins; no particulars ascertained.
- Puukahi.....At foot of pali, Kalaupapa. Nothing learned of its condition if yet in existence. Kahiwa-kaapu was its famous priest.
- Kukuiohapuu.....At top of pali, Kalaupapa. Now in ruins, about 60x100 feet; destroyed in time of Kamehameha V. It was of pookanaka class and was the place for signal fires to Oahu in time of war.
- Moaula.....On ridge on south side of Waikolu gulch, near the bluff, overlooking the sea. Credited to the Menehunes.
- Kaunolu.....Kealia, southwest coast of Lanai. Said to have been a place of refuge as well as heiau. Parts of its ruins yet to be seen. Papalua was its priest.

ADDITIONS TO OTHER ISLANDS.

ISLAND OF OAHU, OF 1907 LIST.

- Maumae.....Palolo, above Kaimuki, a medium sized heiau of pookanaka class, credited to the time of Olopana. Foundations only remain.
- Puea.....Palama, a noted place to which offerings were taken; probably only a sacred shrine. Long since removed.
- Kaieie.....Kalihi-uka, on premises of Dr. Huddy; of hoouluai class. Haumea its deity. Parts of foundation only remain.
- Kaaleo.....Kalihi-kai. No particulars ascertained.
- Haunapo.....Kalihi-kai. No particulars ascertained.
- Oomaunahele and Pae-paenuileimoku.....Are names of Kapalama heiaus known only in tradition.
- Paweu.....Kawaihapae, Waialua, a small platform heiau 58x65 feet at base of the hill; badly damaged by freshets. Class unknown.
- Pupuka.....Haleaha, Koolauloa, a small heiau 30x50 feet, little of which now remains.

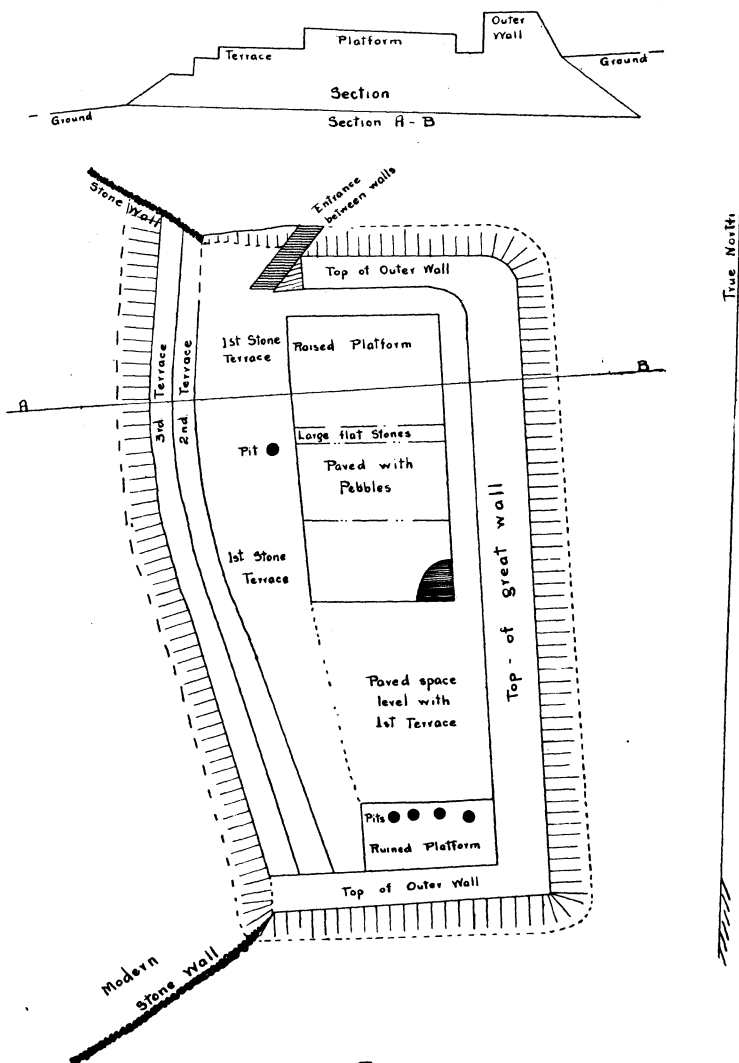
- Puuakeau.....Kapano, Koolauloa. No particulars learned.
- Hanawao.....Punaluu, Koolauloa. No particulars learned.
- Unihokahi.....Makalohi, Hauula, a platform heiau covering about one-fourth acre, in ruins; class unknown. Its front wall runs east and west about 100 feet. Famed in its connection with the tradition of Pakaa.
-Punaiki, Hauula, a small walled heiau, class unknown, now in ruins.
- Puakaa.....Hakipuu, Koolau, a large three-terraced heiau, still in existence; an ancient place of refuge to which is coupled the name of Kaopulupulu as supervising priest.
- Kukuianiani.....Waikane, a terraced platform heiau of good size. No particulars obtained.
- Aliikoa.....Kahaluu, Koolau, a good sized heiau, in ruins, hidden in a tangle of guava growth; no particulars ascertained.
-Leilehua, above the ranch house on the Waianae range; an important heiau in its day, and of large size; visited by Kalakaua in the '70s. Recently destroyed and its stones used in the Wahiawa dam.
- Haena.....(Locality not identified). A heiau consecrated by Kamehameha I. to his war god, with sacrifices, after which he collected his forces together at Waianae for his attempted raid on Kauai.

ISLAND OF HAWAII, OF 1908 LIST.

- Makanau.....Hilea, Kau, on the land of Pakua, the heiau of Kuakini, a very ill-tempered chief before the Kamehameha's. The pebbles for its paving were brought from the seashore at Kawa. Nothing now remains of it.
- Auaulele.....Waiohinu, Kau, a small heiau of the severe class, constructed by Kupakee's grandfather. Nothing of it remains.

SUMMARY OF LISTS FOR ALL THE ISLANDS.

Number of heiaus and heiau sites, Hawaii.....	138
Maui	39
Molokai and Lanai.....	24
Oahu	96
Kauai and Niihau.....	124
Total	421



PUU KOHOLA HEIAU
Traced from Reg Map No 1869
W. D. Alexander

For Description of this Heiau see 1908 Annual, pp. 85-6.

TALES FROM THE TEMPLES.

Part III.

Continued from last issue of the HAWAIIAN ANNUAL, embracing the Heiaus of the Islands of Maui, Molokai and Lanai, and completing the series.

By THOS. G. THURM.

Heiaus of Maui.

AMONG the more prominent of the doubtless many heiaus once existing on the island of Maui little information is now obtainable beyond that handed down by tradition, nor is there much in evidence to mark their sites, so complete has been their demolition.

History couples the first temple building on Maui with Hua, the infamous king of that island who reigned prior to the 10th century. He is designated at times as Hua-a-Pohukaina, and also as Hua-a-Kapuaimanaku,—referring to the two names by which his father was known. His first work in this line was in Lahaina, his birth-place, where, of the six heiaus we have learned of as having existed in that locality in all the years of its history, he is credited with erecting two, and another Hua, probably Huanui-kalalailai, two generations later, built the third, as shown in the following:

“The heiaus of Luakona and Waie, close to Kapaulu, Maui, were built by Hua-a-Pohukaina, not the builder of Apahua. He also erected the heiaus of Honuaula and Kuawalu at Kauwiki, Hana. He went from Lahaina to Wananalua, Hana, where he built him a war heiau, then raided Hawaii successfully.”¹

There are the ruins of three others in Lahaina at the present time said to belong to, or just prior to, the reign of Kahakili, all of which are reported to have been under the priestly charge of Lanikaula. Two of these, Halulukoakoa and Wailehua, are distinguished as receiving Liholiho's first public duty, at his con-

¹ Au Okoa, Oct. 28, 1869.

secration of them in 1802, after he had been sanctified to that service as the heir of Kamehameha I., at the early age of five years.²

The erection of Wailehua was responsible for a rebellion on Maui caused by the carrying of stones for its building, incited by Pinaau, a counsellor and priest in the time of Kauhiamokuakama, eldest son of Kekaulike, against the authority of Kamehameha-nui, about 1740.

Of these later temples the following data was gathered from the late care-taker for fifty years of Wailehua:

"The premises adjoining the heiau of Wailehua was where the victims for the sacrifices upon its altars were slain, and on the nights of Kane, and Lono, the beating of drums within its precincts are constantly heard, and on days of Lono the ancient chiefs are wont to gather therein to look about, go out surf bathing, and collect the fragrant lipoa of Wailehua to this day.

"Halekumulani also gives forth the sound of drum beating on the nights of Kane and Lono, and within its walls are some canoes and other ancient articles.

"Halulukookoa, a coral structure, is famed traditionally as having given shelter to Wahine-o-Manua, a very beautiful young woman who fled from her husband in consequence of constant ill treatment. Regardless of the rigid kapu of the heiaus against women being allowed within its sacred walls, she hid herself therein and watched those searching for her. On their departure she ventured forth and on reaching the road an owl god appeared to her as guardian and guide, and by the clapping of its wings led the pursued girl through the brush till she reached the large stone mauka of Kekaa, Kaanapali, where it left her and she lay down and slept till morn, when she arose and departed. The stone is known as Pohaku o Wahine o Manua."

Of the Wailuku heiaus it is somewhat remarkable that of the seven we have been able to learn of in that section, five are named as consecrated by Liholiho during his tour for this service during the year's stay of the "peleleu" fleet at Maui, viz: Pihana, Kaluli, Malumaluakua, Keakuku and Olopio, as also Kealakaihonua at Waihee. This was plainly in the line of a religious duty in connection with the proposed invasion of Kauai by Kamehameha, that the gods would favor his ambitions, for in the expedition

² Kuokoa, July 20, 1867.

was the high priest Puou, and Hewahewa his father, of the Pao order of priesthood; Kuaiwa, and Holoilena of the Nahulu order, and Kapoukahi, diviner and heiau architect, as forming his Board of Priests.³

It may be inferred that most of the heiaus in this section were war temples. The massiveness of Pihana, as shown in its ruins, as also the prominence of Kaluli in turbulous times confirm this. The time of their construction doubtless dates far back, and of their repair or reconstruction, Kahekili is credited with placing Kaluli in order on the instructions of the high priest Kaleopuupuu,⁴ in anticipation of war with Kalaniopuu of Hawaii. And in the battle of Waikapu common when the Maui forces annihilated the invading army so that but two out of the 800 escaped alive, the only prisoner, a chief of Hilo, brought alive to Kahekili to be sacrificed at the heiau of Kaluli in honor of the victory, died of his wounds before he could be offered up to the gods. This was in 1776.

Pihana heiau was built on the top of a sand hill of that name, running east and west, forming the northern boundary of Wailuku proper. It was an enclosed structure with walls said to have been fifteen feet high. Prevailing trade winds have in the century since its disuse succeeded in filling up the interior with sand from Paukukalo beach until it is now on a level with the top of the walls, save here and there outcropping sections may be seen. A large portion of the south end wall has been eaten away by the elements and its stones now lie in artistic disorder in the bed of the Wailuku stream whose flow of waters have been diverted for modern cane culture. It is said of Pihana that on Kamehameha's invasion of Maui, in 1790, with an army of warriors which resulted in the defeat of Kalanikupule's forces in the celebrated battle of Pani-wai-o-Iao, the conqueror invoked the blessing of his war god Kukailimoku thereat, and sacrificed upon its altars.

Its construction is credited to the traditional Menehunes who are said to have brought all the stones therefor from Paukukalo beach and erected it in one night.

Several hundred yards from the base of Pihana is Wailuku spring and taro patch, reserved in ancient times for choice plant-

³ Kuokoa, July 20, 1867.

⁴ Polynesian Race, Vol. II., p. 152.

ings for royal tables only, and from this spring the town and district is said to derive its name.

The Kealakaihonua heiau, in Waihee, is noted as belonging to "Koi, a certain dark-skinned (paele) native, prominent in the rank of Kahekili's chiefs, one of his generals and a priest of the Kaleopuupuu order. He it was who led the assault on the boat's crew of the *Dædalus* and murder of the two officers and a seaman, at Waimea, Oahu."⁵

The little that has come down to us of the history of Maui's temples show how intimately connected they are with the war spirit of their time; no more perhaps than of the other islands that have been dealt with in this series, but of the many that must have existed throughout the island, this class predominates among those that have been listed, and but few of these are in evidence today.

To Kekaulike, King of Maui, is credited the construction of the prominent heiaus in the Kaupo district, just prior to his raid on Hawaii in the early part of the 18th century, for it is recorded that when Alapai-nui made successful war on other chiefs of Hawaii, judging the time opportune for possible conquest on that island, Kekaulike was building the heiaus of Loaloa and Puma-ka-a, at Kumunui, and Kanemalohemo, at Popoiwi, after which, gathering his forces together he set sail to harass and burn the Kona coast villages.⁶ We find again that these same three temples, with that of Maulili, at Kipahulu, received the solicitous care of Kamehameha upon his touching there with the peleleu fleet in 1802, en route for Kauai, for he rebuilt them all and dedicated them to his war god. Connected with the temple services at this time and place was the ceremony of empowering Liholiho with the sacred duties of temple consecration, etc., which public service he first performed at Lahaina, as has been mentioned.

Little can now be gathered relative to the temples that for many years were prominent in Hana and its vicinity. The strategic position of its Kauwika hill was recognized by the various warrior kings and chiefs, and in consequence has been the scene of some of Maui's hardest fought battles, and to influence which her most famous heiaus were built. These date back to the time

⁵ Kuokoa, May 18, 1867.

⁶ Poly. Race, Vol. II, p. 133.

of the older Lahaina temples and are credited for their origin to the same Hua-a-Pohukaina, king of Maui. It is said that on completing those at Lahaina he moved to Wananalua, where he erected his war heiau, then gathered together his forces and waged war successfully in the Hilo district of Hawaii, then returned to Hana where he built Honuaula, and Kuawalu, at Kauwiki.

Notwithstanding Hua's activity in temple building to secure the favor of the gods in his designs, it is traditionally recorded of him "that he ventured to oppose the priesthood and became so angry in a dispute with Luahoomoe, his high priest, about the "uwau" birds, that he resolved upon his death. Conscious of the fate that awaited him, the priest gave directions to his two sons how to escape royal vengeance. In due time, according to ancient custom, the house of Luahoomoe was burnt by order of the king, and the refractory priest killed. But the vengeance of Luahoomoe and the king's punishment for slaying a priest were swift in coming and terrible in their consequences. No sooner was Luahoomoe consumed by the fire of his burning house than the streams of water ceased running; the springs dried up; no rain fell for three and a half years, and famine and desolation spread over the islands. Hua and his people perished miserably, and the saying survives to this day, *Nakeke na iwi a Hua i ka la*—'rattling are the bones of Hua in the sun'—as a warning to wicked people, implying that no one survived to bury Hua or hide his bones;—the greatest disgrace of ancient times."⁷

Of the other temple at Hana, Kaniomoku, we gather no particulars further than that it was also a place of refuge. West Maui also had its ancient place of refuge, known as Kukuipuka, at Waihee.

The temple of Pakanaloa, has a tradition claiming origin in the worship of the thunder to the effect that its kahu, Kanehekili, died within its walls, and when his brother-in-law realized the fact he cut off the head and took it to Lanai. The people of Hamakualoa, wondering at his disappearance, searched till they found his body in the temple at Keanae, and when it was made known that the guardian of the god was dead, the people came and cut his body into small pieces and distributed it. As each

⁷ Poly. Race, Vol. II., pp. 41-2.

place all over Maui received a portion of his body it became their duty to worship the thunder. Those who had the head, they worshipped it; and also his eyes, or his mouth; they were called the eye of god, or mouth of god, and so on. All the ancient people believed in the god of thunder, and that he came to them personally and conversed with them in visions or dreams. Sometimes he would show his godly body, like the body of a man, his feet touching the earth and his head in the sky with the moving clouds; one side was very black from head to foot, this was the right side, the left side was white. This sometimes changed to a real body and conversed with the people, but not so his black body. It continued that way in order that his descendants would not fail to recognize the body of Kanehekili—the God of Thunder.⁸

Heiaus of Molokai.

The ANNUAL is indebted to Messrs. Wm. A. Bryan and M. D. Monsarrat for much of the following field notes and data, and to the Survey Department for the heiau plans of this issue.

The principal or most important heiau of Molokai is that of Iliiliopoi, situate in the Mapulehu valley, noted not only for its size, but also its age and traditions. Fornander says: "The cruciform pavement or division of the ground floor found in some of the heiaus on Hawaii ascribed to Umi, and very rare on the other islands, is a marked feature of Iliiliopoi, built much earlier than his time." By survey measurements it is 268 feet long by 85 feet wide, floor surface. The eastern end is built of four terraces, the second from the top extends around to near the middle of the south side and was the entrance to the heiau upon which the sacrifices were carried around to the middle of the west end. The structure stands more than 20 feet high at the east end and over 10 feet high at the west end, well walled up of well rounded stones from once to twice the size of a man's head. The temple is practically level on top save for a missing northwest corner; is rectangular in shape, without any indication of an outer wall or fence of any sort. There are a number of irregularities in the surface. The remains of what was once a stone wall that had stood about a foot high marked a more or less rectangular space 12x15 feet, toward the south side one-fourth the way from the

⁸ Au Okoa, March 31, 1870.

west end. At irregular intervals were piles of stones a foot high which looked to have been piled about the foot of images—we were told that that was what they were. A number of holes here and there were pronounced modern by our informant, all made during his recollection by a white man looking for bones, etc. Ki plants (*cordyline terminalis*) were now growing in two of the holes.

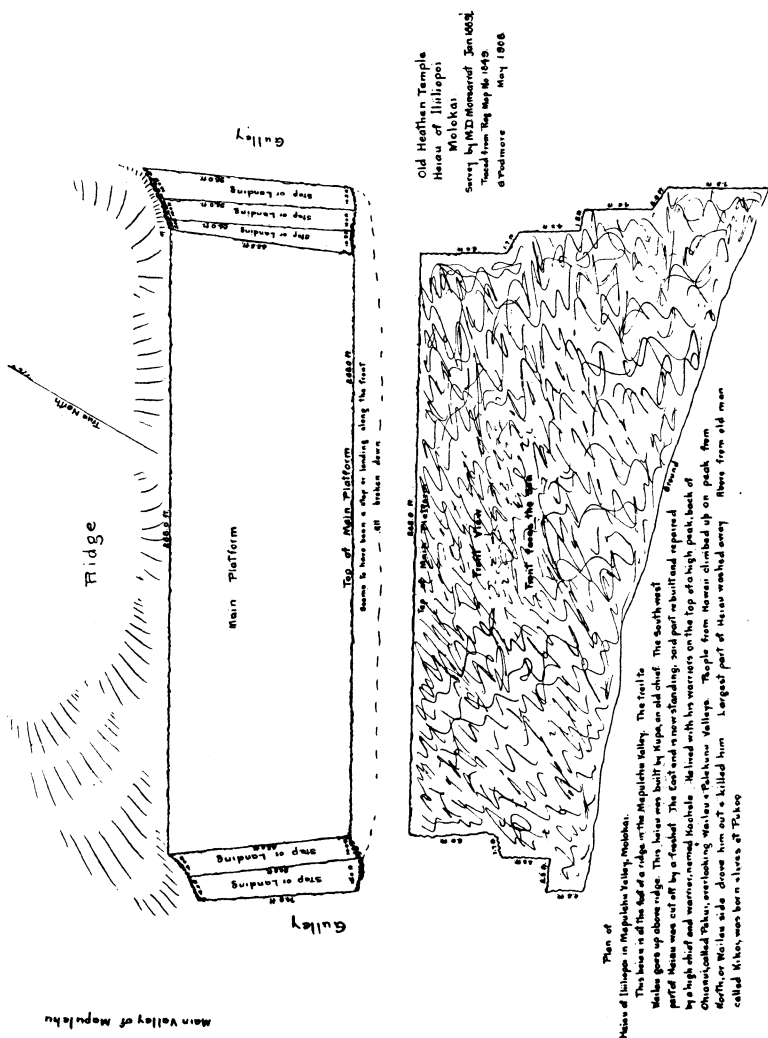
The end terraces varied in width and height, as may be seen by the plan. The retaining walls were all in good repair except a few loose stones at either side which had been kicked out by the people using the Wailau trail, which runs over it.

Tradition says Ililiopoi was built by the Menehunes with stones brought over the Wailau pass from the Wailau sea beach. To perform this remarkable feat they stood side by side so that the stones never touched the ground in this long journey of over ten miles. While doing this work they were each given a single opae (shrimp) as food, the work being completed in a single night.

Originally the heiau covered almost three times the present area and was of a different type; possibly a walled temple. Any way it was enormous and was the stronghold for a numerous and powerful college of kahunas, in which young men were trained and afterward sent out to work in other heiaus. Women were never trained as priests, nor allowed about the priests' houses.

The cause of the reduction in the size of the temple, as told us, differed somewhat from the Forbes' account; it is as follows:

"The chief of the section which includes this valley was not on friendly terms with the chief at Kaunakakai, so that the Mu's were sent out on an occasion to secure victims for sacrifices. They got a man, his wife, and ten children from there. These were brought to the valley and kept for sacrifices. One by one they were given up on the altars of Ililiopoi until all but the last one was gone. Then the father one dark night escaped and fled in search of some one who could help him work revenge. He went over to Pelekunu and there told his story to a famous kahuna, Kauhuhu. He promised the desired revenge and accordingly sent a terrible rain; a cloud burst in the mountains that washed out the heiau, the priests' houses, and those of many of the people, and carried many of them out to sea where they were eaten by sharks, hence the old name of the harbor, Ai Kanaka.



HEIAU OF ILIILIOPOI, MOLOKAI.

Those of the priests who did not lose their lives fled panic stricken, some to the other islands."

In the time of Kaalauohua, the reigning chief, the heiau was rebuilt out of the stones gathered from the old one, and as best I could gather represented a different type or school of worship, and that is the temple as it now stands.

From our informant we learned that Lono was the chief god, and that a separate altar and small enclosure located outside the heiau proper, at the east corner, was where offerings were left for this deity. On the terrace extending about the east and south side, at the corner of the temple, was the place where Ku was located. The temple god was located in the center of the east end some 20 feet back from the terrace. However, no sign of it is now visible in the surface arrangement of the stones.

At the season of Kane, it is said, the people were summoned to the temple by a beating of drums and loud shouting. The male members of the tribe were gathered in about the base of the temple; the women were to keep at a distance or out of sight entirely. At a certain signal from the priests on the temple all fell down and the sacrifice was carried in to the temple by the entrance already mentioned. The sacrifice was carried in alive and tied to a scaffold and there killed by strangulation (on this point our informant seemed quite clear); during the chanting the assembly remained prone. When the formula was completed all rose up and went their way; the services usually being completed in one day. At its close the sacrifice was taken from the temple and burned in a large fire 50 or 75 yards from the southeast corner of the temple. The victim was never buried; always burned. There was no bone yard. The sacrifices were few, never many offered at one time, but they were very regular, the sacrifices always being made from the 24th to the 27th day of the moon. To prepare the temple for sacrifice large mats were brought from the kahunas' houses and spread down on the stones on top of the temple pile. When the services were completed they were again rolled up and taken away. There were no priests' houses on the temple, all living some distance away. Nor was there any palm leaf or other fence about the top of the wall; everything was done in the open and in plain sight.

The foregoing data is from an old man named Ohulenui who was born and brought up under the shadow of Ililiopoi, who

learned the history and practices of the heiau from his father (now dead some fifty-four years), though worship therein had ceased about the time of his father's arrival in the valley from Kalaupapa.

The heiau of Kahokukano, on the ridge between Manawai and Kahananui, just below Pakui peak, is also credited to the Menehunes for its construction. It is 90x170 feet in size, said to be a fish heiau in which sacrifices were offered. Mauka of it is a pond that used to be used for fish for a quartette of chiefs, Kumekoa, Halai, Mulehu and Kalaniahiikapaa, who lived at the heiau, with one Kaohele, a famous runner, as their guard and protector. In a battle with a force from Hawaii Kaohele was killed by a sling stone hitting him in the breast, whereupon the Hawaii chief sought to kill the resident aliis, but they fled to Kaluaaha and hid.

Above Kahokukano, on the same ridge, 600 feet due north from it, is another but smaller one, measuring 60x160 feet, and due west from this, is yet another in the Manawai valley, known as Puolelo, of the walled-in type, in ruins.

Halawa valley has had its share of heiaus, the sites of no less than six being located. Of those in existence, Mana, of about 60x120 feet in size and 20 feet high, is of the ancient truncated pyramidal form, without any distinctive features. It is now overgrown with lantana. Alili is a small affair some 300 yards up on the side hill, used in latter times as a terraced garden. Akauhale, at Halawa-iki, is 20x30 feet of stones, built up six feet or so in the corner of a walled-in space like a door-yard say 125x150 feet, irregularly shaped. Another, name unknown, regarded as the most important, and a sacrificial heiau, has been entirely removed and its stones taken for ballast.

In Moanui valley, at Apuhi Pohakupili, is the heiau of Ka Hoonoho, small in size and but a couple of feet high, made of smooth stones without a wall or any variation except toward the west end a slight raised place, 6x8 feet, was pointed out as a grave. The story that goes with it, is, that the chief of this district was always in trouble with the chief of Kaunakakai, and that when he died his trusted followers took him up the valley to a small isolated hill to denude the bones for burial. They had watchers out on either ridge to prevent being surprised by spies of the hostile chief. A spy from the enemy was discovered, the alarm given and the body and bones was hurried into a near-by

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cave. So sure were the kahus that the whereabouts of their chief was known that they consulted a kahuna who told them to bury the dead chief in this heiau, which was done. In answer to "why bury in a place so exposed to view?" it was told that this was a safe place because "to put your hand on this heiau would protect you from your enemies, being a temple of refuge and tabu."

From that heiau down to the sea in the old time was a road-way marked out for the old chiefs. This was done by setting stones on edge at either side of the path, 16 feet between the rows. These stones can still be seen on the beach below the road straight down from the heiau. The name given is Kakahaku. The attempts of three desecrators to utilize this heiau premises have failed. First, a Japanese made a pig pen of the stones; the pig died. Second, another man ignorant of the things of nature tried to make a ditch across one end; the water would not cross it but sank in the ground. The third moved some of the stones to clear the land, but mysteriously left the valley before finishing his work. It is deemed dangerous to move the stones. One man lay some on his roof and they fell through at once. At one time a large kou tree (*cordia subcordata*) stood in the heiau, which, when it began to decay a native wished to remove, but doing so he put some fish in the hole from which it was removed, as an offering.

CUSTOMS TABLE REVIEW, 1908.

THE exhibit of our Customs Tables of import and export for the past year, as given on pages 22 to 26, shows the Territory to have reached the banner period in the amount and value of exports, viz: \$42,238,145, exceeding the year previous by \$12,934,450 and that of 1905, the next best export year, by \$6,063,619.

The imports for 1908, of \$19,720,554, is also an increase over the previous year by \$1,058,120, yet it still leaves to our credit the very handsome sum of \$22,517,591 as excess of exports over import values for one year, which is also a banner showing in several respects.

This healthy condition of the commerce of the Territory is very gratifying. The increased yield of our main staple, sugar, and the improved prices ruling throughout the season, as also the steady development of the pineapple industry is largely, if not wholly, responsible for the situation. But there are other encouraging features which may be gathered by a careful analysis of the tables.

Dealing first with domestic exports—by which is meant Hawaiian products—improvement in values are shown in Beeswax and Honey to the amount of \$5,829; Coffee, \$27,931; Fruits, canned and fresh, \$403,207; Leather, \$12,516; Sugar, brown and refined, \$12,123,065; Vegetables, \$5,977, and Wool, \$3,585, while of our other products showing a decline from values of 1907, viz: Hides and Skins, \$54,284, and Rice, \$6,671, may be attributed to larger home consumption; Molasses, \$335, to so close a working up of that product as to render it unprofitable for shipment, while the falling off in our Fiber exports—which represents our sisal industry—may be caused through lateness in harvesting the crop. The net gain, however, of these few products for 1908 is \$12,522,281, an amount exceeding our total annual exports previous to 1887, as also several years since. These figures are, furthermore, almost wholly from our trade relations with the mainland, the articles of both import and export between these Islands and foreign countries and their values not being shown in the “Summary of Commerce and Finance of the United States” from which our tables are compiled.

Other principal articles of increased domestic exports represent returned merchandise, mainly, and may be said to show over importations, or goods found unsuitable for this market. These are covered under the lines of Cotton and manufactures of, \$6,707; Instruments, \$5,043; Meats, \$3,563; Oils, \$15,116; Papers, \$1,963; Spirits and Wines, \$7,992; Tobaccos, \$858, and all other \$46,087. As this last item shows an increased value beyond all the others combined it is possible that some result of the new diversified industry movement may be hidden therein. Otherwise the tables show the same limited list of articles of island export.

The countries with which we have had increased export

relations the past year were Canada, Germany, Italy (new), Hongkong, Japan and the Philippines, besides that to the mainland. Exports to Australasia, Great Britain and Korea show a decline.

Coming to importations the review presents some important and interesting features. The total value of all imports as already mentioned are shown to be \$19,720,554, of which amount but \$4,682,399 has been furnished by foreign countries. Of the difference, \$15,038,155 supplied us by the United States, it appears that \$10,669,298, or over two-thirds, represent shipments by and through San Francisco. These imports have only been exceeded in value twice in our commercial history, which was in the expanding period immediately following annexation, 1901 and 1902. The countries benefitting by this increased amount of our purchasings besides the United States were Argentina, Azores and Madeira Islands, East Indies, Chile, China, France, Italy, Hongkong, Japan and Australasia, while a larger list of other European countries, Oceanica and the Philippines show a falling off.

While several important lines have declined or indicate little change, the principal articles of increase, showing a total value of \$1,428,483 over their imports of 1907, embrace lines of necessary living and general improvement—with the exception of Opium—rather than of luxury. These articles, with the amount of their increase over 1907 are as follows:

Agricultural implements...	\$ 8,287	Fire arms	\$160,467
Animals	64,101	Meat and dairy products...	20,254
Books	25,509	Mineral oils	112,601
Breadstuffs	224,370	Opium	40,637
Bricks	9,256	Paints, etc.	11,429
Cars, autos, etc.	122,329	Rubber and manufactures..	12,177
Cement and lime.....	95,380	Soaps other than fine.....	40,514
Coal	163,988	Sugar and molasses.....	5,688
Explosives	16,451	Vegetables	19,582
Fertilizers	214,738	Wool manufactures.....	41,703
Fish and fish products....	19,022		

Without going into a detailed analysis of the importations as in the last issue of the Annual, there is yet the same evidence to be found therein to strengthen the appeal for the "small farmer and diversified industry" movement. To illustrate this fact more pointedly we have compiled the following

comparative table of articles and their values for three years past of food and other products that we should be producing ourselves instead of depending on others to the extent here shown of over \$3,000,000 per annum, and growing:

COMPARATIVE TABLE OF IMPORTS THAT SHOULD BE LARGELY SUPPLANTED BY
HAWAIIAN PRODUCTS.

ARTICLES.	1906. -	1907.	1908.
Animals.....	\$ 115,197	\$ 124,220	\$ 188,321
Cocoa and chocolate.....	10,788	10,755	14,715
Coffee	11,289	12,418	18,227
Eggs	12,995	14,943	16,511
Fibers—Cordage and twine.....	86,587	124,718	95,830
Fish	247,954	271,073	190,695
Dairy products—Butter	116,714	130,015	146,854
Cheese	31,512	31,429	29,887
Milk	95,152	147,614	128,310
Grain, flour, feed, etc.....	1,427,230	1,452,608	1,675,187
Hay	132,123	188,087	182,636
Honey	672	809	734
Leather—Sole and upper.....	55,097	88,269	85,704
Lime and Cement.....	103,723	75,084	177,424
Meat—Hog products.....	96,402	108,818	109,804
Mutton and poultry.....	35,961	31,429	23,027
Oranges	41,034	46,228	54,080
Rice (not including foreign).....	164,863	34,144	4,821
Salt	6,034	7,900	9,812
Soap, other than fine.....	76,628	83,759	124,273
Starch	9,657	15,677	11,094
Sugar—refined	58,644	93,969	98,483
Vegetables—Beans and peas.....	32,248	27,218	38,010
Onions	11,152	14,152	23,791
Potatoes	55,621	86,982	79,232
Totals	\$3,080,317	\$3,223,432	\$3,627,522

The foregoing table might be enlarged to include several possibilities that are under consideration, but if in addition to extending the list of domestic exports we encourage our own people to produce the necessary food and products we are capable of instead of sending abroad as we are doing, the sooner will we reach a basis of mutual prosperity throughout the Territory.

THE PINEAPPLE INDUSTRY IN HAWAII.

(The following notes are translated from a report sent to the French Government by Dr. A. Marques while Acting Consul; this report was so favorably received that it was ordered published in Paris in book form, and its publication has already constituted a valuable promotion work for this industry.)

I.—GENERAL INFORMATION.

FEW persons, even among those who know something about the growing of pineapples in Hawaii, have realized the real magnitude already assumed by this industry, and the extraordinary rapidity of its growth. A few details will therefore help to place the matter in its true light.

Pineapples, in spite of the assertion to the contrary, do not seem to have been indigenous in the Hawaiian Archipelago, and several old natives have told the writer their belief that the importation of this plant, in the very beginning of the 19th Century, was due to whalers, and also to the patriotic efforts of the Spanish pioneer, Don Marin, "Manini," to whom Hawaii owes the introduction of many useful plants, which have become acclimatized, while the memory of the benefactor who caused them to be brought over is being all but forgotten. The first pines introduced, left to themselves, gradually propagated in favorable localities, and especially in the warm and sheltered vales of Kona, Hawaii, where, according to Hillebrand's "Flora," they passed to a half-wild condition. Their abundance, later on, fostered the creation of a few local concerns for making home preserves, which, for a half century, sufficed to supply the home consumption. So it was only towards 1880 that a few white settlers began to foresee the economical possibilities of the pineapple in Hawaii, and started its industrial cultivation. At this time, outside of the primitive kind which had become indigenous, several other varieties were brought in, either through Government help or by private individuals—Messrs. Kidwell and Jordan, especially—about 1885, in order to ascertain those which might best suit our conditions of soil and climate.

The first company of importance devoted to the pineapple industry was started in 1891, on lands near Pearl Harbor, and others

quickly followed in the neighboring and exceptionally propitious district of Wahiawa, about 20 miles west of Honolulu; and here the simplicity of their culture as well as their prolificity and the excellent quality of the fruit soon demonstrated that in pineapples our Islands would find an important source of wealth.

The first results obtained are found tabulated in the cotemporary Reports of Customs, which show that the first exportation, consisting of only 80 boxes of ripe fruit, in 1890, soon increased as follows:

Dates	Fruit		Preserves	
	Number	Value	Cases	Value
1891	5,368	\$ 2,360	....	\$....
1892	40,171	10,139	....	....
1893	49,042	10,304	....	....
1894	44,903	9,889	....	....
1895	65,213	8,783	468	972
1896	147,451	15,349	589	2,276
1897	159,925	14,423	115	347
1898	63,727	8,669	3,151	5,816
1899	83,162	10,781	1,064	3,948

We can notice here that, during the two years 1898-1899, before our annexation to the United States, the total value of exported pines,—fresh and preserved,—had reached the stationary figures of \$14,485 and \$14,739, while during that same period, the exported bananas had gone up to \$67,052 and \$84,761. These figures show conclusively that, at that time, by reason of the uncertainty and irregularity, as well as excessive charges of shipping, and still more on account probably of the enormous duties,—35%,—then levied on the entry of those fruits in America, the financial results for the local growers were so meager that they were beginning to lose faith and courage, and the cultivation remained stationary up to the time when annexation finally allowed the free importation of the Island produce into the United States. The planting of pineapples immediately took a fresh start and increased rapidly from year to year, so that, at the end of 1907, this industry had attained the fourth place among our exportations, that is to say, ranking immediately after rice and coffee, both of which it will hereafter greatly exceed. Of course, compared with the sugar industry, which represents an investment of more than one hundred millions of dollars, pineapple is still a very small business, and yet we find already invested in it, in planta-

tions and canneries, a capital of more than two million dollars, while at the present writing, the further extension of the plantations and the creation of new ones with adequate canneries seems really limited only by the available land and the number of plants procurable for planting, whereby, to the old enthusiastic saying, that here "sugar is king," is now being added the new one, that pineapple will be "queen."

The erratic manner in which are established the Federal Statistics, and the impossibility, through official red-tape, to obtain special information on specific points of exportations, preclude the possibility of following, by positive figures, the annual progress of the exportation and consequently of the culture of our pineapples since annexation, so we must rest content with approximations.

The lump values given for the fiscal year ending June 30th, 1905, were as follows: \$152,894 of preserves and \$29,003 of ripe fruit for the United States, and \$80 of preserves and \$1,993 of fruit for foreign parts, giving a total of \$183,970. Furthermore, from the last documents published by the Statistical Bureau in Washington, we gather the following comparative custom-house valuations for three years:

EXPORTATION OF VARIOUS FRUITS FROM HAWAII, TWELVE MONTHS
TO THE END OF DECEMBER.

	1905	1906	1907
Fruits, green, ripe or dried.....	\$129,601	\$124,138	\$124,146
" preserved	135,808	250,990	601,748
" various, and nuts.....	1,408	7,825	7,734
	<u>\$266,817</u>	<u>\$382,958</u>	<u>\$733,628</u>

However, it must be noticed that, in the above first class of "green, ripe and dried fruits," with the pineapples are included the bananas, the value of which, judging from the production of the ten preceding years, can be estimated between 80 and 90 thousand dollars, thereby leaving for the exported fresh pineapples, an annual value of between 30 and 40 thousand dollars. But, in the second class,—preserves,—we may take the figures as belonging principally to pineapples, since the other preserves exported are insignificant; and here we find the first inkling of the rapid increase of this produce within the last three years. But

other figures, gathered by the pineapple growers themselves, will show this progression clearer still:

TOTAL EXPORTATION OF PRESERVED PINEAPPLES IN CASES OF TWO
DOZEN CANS.

1903	about 8,000 cases	1906	about 94,000 cases
1904	" 20,000 "	1907	" 180,000 ¹ "
1905	" 40,000 "		

These 180,000 cases represent about 3,600,000 fruits, or about 10 fruits to each dozen cans.

But, to this above total of exported preserves for 1907,—the commercial value of which was estimated about \$600,000, (this is to say, from \$3.50 to \$4.25 per case, on the average \$3.70)—must be added the value of the exported fresh fruit, estimated at over one hundred thousand pines, and probably the local consumption of an equal number, as of also a certain amount of preserves.

A comparison of the output of each of the principal producing companies, for the two last years,—1907 and 1908,—will further accentuate the growth of the industry:

	Cases	Cases
Island of Oahu, Hawaiian Pineapple Co. (Dole)	96,000	165,000
" " " Eames & Co.	20,000	40,000
" " " Pearl City Co.	20,000	35,000
" " " Wahiawa Consolidated Co. (Kellogg)	11,000	75,000
" " Kauai, Kauai Fruit and Land Co.	4,000	6,000
" " Maui, Haiku Fruit Co.	22,000	40,000
" " Hawaii, Hilo Fruit Co.	2,300	7,500
" " " Kona, Captain Cook Fruit Co.	5,420	18,000
	<u>180,720</u>	<u>386,500</u>

And this last total, which already represents a value of over \$1,300,000, will certainly be largely exceeded by the end of the season. Finally, the valuations of the growers themselves, for the year 1909, vary between six and seven hundred thousand cases,—that is to say four times the production of 1907,—in which the share of the Hawaiian Pineapple Co. alone, is reckoned at 250,000 cases; and the production of 1910 is confidently expected to exceed one million cases.

¹ On the 6th of November, 1907, the "Hilonian" took away to San Francisco the largest cargo heretofore sent, at any one time, in pineapple preserves, 20,300 cases, valued at \$80,000.

While all these figures confirm the reputation that Americans have abroad,—of “*faire vite et faire grand*,”—yet they do not, by any means, represent the whole of the Island production, but merely what is grown by those above mentioned large companies, or bought by them from small growers, because they neither take into consideration the quantity or value of the ripe fruit exported or consumed locally, nor that of the preserves manufactured by smaller concerns, which are also rapidly evolving. Thus, the above figures for 1908 and 1909, utterly fail to take into account the produce of the following growers:

(a) The Clark Farm, which has been transferred to Maunawai (Waimea), and which makes a specialty of ripe fruit sent to America (about 100 tons in 1907) and of extra fine preserves in glass; this farm, which has this year 20 acres bearing fruit, will have 75 next year, with more than 125 acres in young plants;

(b) The Thomas Company, also at Wahiawa, which has in hand 322 acres and has recently established a cannery with a capital of \$100,000; the production of this company, about 15,000 cases in 1908, is estimated at 50,000 for 1909;

(c) Three new plantations, comprising about 1,500 acres, in the district of Pupukea, N. W. coast of Oahu, from which are expected results equal to the best of Pearl City and Wahiawa, and which will most probably need a special cannery.

(d) The Koolau Fruit Co., at Heeia, N. E. coast of Oahu, which has started planting 200 acres, with the option of 3,000 more;

(e) Finally, several Japanese concerns quietly started, which are said to be in good condition.

Another view of the progressive growth of this industry can be obtained through the history of the principal company, the “Hawaiian Pineapple Co.,” which began at Wahiawa in 1898, with a few hundred acres of land, out of a total capacity of 1,000 acres. It incorporated in December, 1901, and cultivates today 2,300 acres, 1,500 of which are now in full bearing; its first crop of any importance, in 1903, reached only 1,800 cases, which grew to 8,500 in 1904, to 25,000 in 1905, to 60,000 in 1906, and to 96,000 in 1907, this last figure representing over 2,250,000 fruits, a quantity which, in itself, is already equal to half the total

amount of pineapples which were consumed by the whole of the United States at the beginning of this century.

The other companies at Wahiawa have progressed in a similar manner; thus, in 1908, the Wahiawa Consolidated alone controls over 1,000 acres in full bearing, and the Eames Co. about 160 acres.

It is therefore not surprising that the Oahu Railroad Co. has had to build a special line,—16 miles in length,—to Wahiawa, to handle all this freight, which is brought to Honolulu, either to the Iwilei Cannery, or to the wharves ready for ocean shipment, the railroad charges being \$4 per ton, for annual quantities of less than 10,000 tons, and \$2.50 per ton for larger quantities.

On the other islands of the group, the development of this industry has been less rapid and less extensive, yet it is also considerable.

On Kauai, the "Fruit and Land Co." was formed to encourage, under nearly coöperative conditions, the cultivation of some excellent lands at Kalaheo and Wahiawa of Lehua, which have been divided into small lots, bought principally by Portuguese laborers, working on the neighboring sugar plantation (McBryde & Co.). It is hoped that the ownership of those lots in small holdings and their profitable culture in pineapples,—a culture which can be carried out in leisure hours,—will help that plantation to obtain a stable population of good workmen for the sugar fields. This company makes the necessary advances on the cost of cultivation and harvesting and binds itself to buy all the produce at an average price of \$21.50 per ton. There, the planting is made at the rate of 7,000 plants to the acre, which bear fruits weighing ordinarily four pounds, but reaching six pounds with a little care, this giving an average of 14 tons to the acre, or \$175, leaving a net profit of \$100 to the acre. More than fifty acres are already under cultivation, and this area is rapidly increasing. Up to the present time, the Kauai produce labored under the disadvantage—compared with that of Oahu, Maui and Hawaii,—of having to pay the rather heavy Inter-Island freight rates to Honolulu for shipment abroad; but arrangements have now been made with the shipping companies, to put the Kauai pines on an equal footing of shipment with those grown on the other Islands.

On Hawaii, where, at first, the success of sugar and banana growing had rendered the cultivators indifferent to all other enterprises, the Hilo Fruit and Packing Co. was started to encourage the growth of pineapples on some very favorable lands, in the districts of Olaa and Puna, where this plant grows vigorously and bears abundantly, the fruit reaching easily seven pounds, with a little care and fertilizing, whence the gross produce is estimated from \$300 to \$320 per acre, to which must be added the value of the shoots available for sale. It must, however, be noted that the lands of Hawaii, although very fertile, are more rocky and rugged than those of Wahiawa (Oahu), so that the plants thereon must be cultivated differently, that is to say in fragmentary parcels, not in straight uniform rows reaching out several miles without a break, as on Oahu; consequently, on Hawaii, the cost of cultivation, mostly done by hand, must be heavier than the expense on Oahu, where a more rigid economy, and probably better work, can be obtained through the use of the best mechanical implements. Nevertheless, it seems positive that—of all the crops possible on Hawaii, pineapple is the one which brings in the greatest and most secure harvest, and consequently the one most profitable for a laborer with a small family and little money; and the happy owner of 20 to 25 acres of suitable land will there be sure of a net revenue of not less than \$125 to \$150 per acre per crop, with two crops in three years.

The pineapple industry was started in Hilo several years ago, principally in view of exporting the ripe fruit to California, by means of the steamers running direct between Hilo and San Francisco; but the abundance of the produce led to the establishment of a cannery to utilize the fruit that cannot be exported, and the last report of the Canning Company (January, 1908) gives a pretty fair idea of the importance already attained by this industry in that section. During the preceding season this company had bought 73,823 fruits, weighing on the average 3.95 pounds, which realized to the growers about \$24.05 per ton, and this quantity was produced as follows:

13,185 lbs. by	5 Hawaiian growers	165,455 lbs. by	47 Japanese
18,039 " "	11 Portuguese	67,662 " "	4 companies
27,046 " "	10 American		
559 " "	1 Chinese	291,946 lbs.	

whereby it can be seen that, in this district, the principal growers are already the Japanese working on their own account.

At Napoopoo, Kona, where the soil is also very fertile but still more rugged and rocky than in Puna, the "Captain Cook Fruit Co." was started by Mr. W. W. Brunner with about 30 acres, from which 3,000 cases of preserves were manufactured in 1906; but, a few months back 50,000 new plants,—imported from Wahiawa by the Kona Development Co., who have taken charge of this property,—have been planted, which promise a large increase in the near future.

On Maui, the "Haiku Fruit and Packing Co." gathers the produce of a number of small farmers, who devote to pineapple some very fertile parcels, on which the fruit grows to an average of $4\frac{3}{4}$ pounds without manuring; and tho' this does not seem an excessive size, yet the growers here boast that the total crop they obtain per acre is not equalled on any plantation of the other Islands. Thus, it is said that a field of 10 acres of ratoons,—i. e., the offshoots of the first planting,—produced 250 tons of fruit, or 25 tons to the acre. The Haiku Co. buys the fruit for manufacturing preserves in slices, gratings and small cubes called "tidbits," and it also manufactures the necessary tins, at the rate of 3,000 a day. The financial results of this company have been so satisfactory that the cultivated area is constantly increasing; and even in the neighboring district of Makawao, large tracts are being planted, in view of taking advantage of the local railroad to carry the crops to the Haiku cannery. The Maui preserves are shipped direct to San Francisco and New York, on the American-Hawaiian steamers, which come to Kahului to load sugar.

All the above details will clearly establish that, since the revival of this industry at the beginning of this century, the general tendency of the pineapple culture in this Territory has been to *double* from year to year, and everything leads to suppose that this tendency cannot fail to continue,—the proportion perhaps increasing even more,—unless the development of the consumption fails to correspond to that of the produce, and consequently

forces a limitation of the last. At present, there seems to be a craze for pineapple farming, principally among Portuguese and Japanese small growers, and although the market of the United States, which is, so far, the only consumer of our pines, both fresh and preserved, seems to be practically unlimited, yet there is really a faint possibility of overstocking that market, and the conservative growers being alive to the danger, they are preparing to minimize the chances of too much competition resulting in mutual detriment, by forming a federation of planters.

Whatever the future may be, a very remarkable feature, so far, in the past development of our pine industry, is the fact that their produce, from year to year, quite naturally and without hardly any effort at advertising, has found a ready market; even more, the entire crop of 1907, however large it may appear, was disposed of, before even it was matured, the reputation of the Hawaiian product having rapidly reached from the shores of California to those of the Atlantic; and the placing of the whole of 1908 crop is said to have been as easy and prompt. This immense success seems due essentially to the quality of our fruit, which is so decidedly superior, that the Wahiawa growers do not hesitate to assert that they are the best in the world. While making allowance here for some very excusable exaggeration and enthusiasm, there seems no doubt that the Hawaiian pineapples are much superior, in taste and in size, to all the similar produce commonly marketed and so far known in the States, which are essentially those of Florida, sold wholly as ripe fruit, and those of the Bahamas and Bermudas, which are introduced mostly in form of preserves.

But the Florida pines are cultivated under artificial and very expensive shelters, on a very poor sandy soil, which needs constant fertilization by artificial manuring, and the fruit thus forced cannot attain the exquisite perfume and the deliciously sweet acidity of the fruit ripened in the full sunshine of the Hawaiian Islands, and gathered only at the right time.

On the other hand, the preserves made in Hawaii constitute for the American customer a new and entirely different product, which does not displace or compete with the Bahama preserves, of which the fruit is less tender and more acid, with a perfume much less agreeable and delicate. But the Bahama preserves are

not used as a table dessert in the manner of preserved peaches, apricots, pears, etc.; they are used principally in ice creams or to perfume cocktails and other mixtures. On the contrary, the Hawaiian fruit,—whether ripe or preserved,—is essentially a table fruit, fine, delicate, without any tough or stringy portions; it can be eaten with a spoon or fork without leaving any woody residue, so that wherever known, it becomes immediately a favorite dessert.¹

This notable superiority of the Hawaiian pines seems due to a combination of favorable conditions of climate and soil, together with a happy choice of variety, intelligent care of cultivation and especially a due attention to the proper maturity of the fruit, obtained under our life-giving sunshine; to these conditions must be added, for the ripe fruit, the careful packing, and for the preserves, the fact that the canning is generally done in close proximity to the fields, thus avoiding the deterioration in the flavor of the pulp through the bruising of the fruit and the delays of transportation; moreover, it is only the best cane sugar that is used here in the canning.

II.—TECHNICAL DETAILS.

CLIMATE.—It has long been admitted that the best regions for the pineapple are those where the temperature varies between 50° and 80° Fahr., as this plant does not stand frost; it must therefore find a congenial climate on Oahu, where the rare extremes do not reach the outside limits of 52° and 90°, but where the *daily* average for the coldest month is 72°, and 75° for the hottest month, while the general average of the whole year ranges between 73° and 74°. The averages on Hawaii are a little higher, and those on Kauai a little lower; yet the climate of the whole archipelago is really a perpetual spring, with the differences between winter and summer months hardly perceptible, while here the storms and the disastrous cyclones of the United States and of Malaysia are utterly unknown.

¹The juice of the Hawaiian pine combines quite pleasantly with that of the sweet orange, and a very delicate dessert can be obtained by mixing finely shredded ripe pineapple with shredded navel orange, the mixture to be sweetened to taste and placed for an hour on ice; this is ordinarily served with ginger crackers.

This plant grows, in this country, from the level of the sea (if the location is not too dry) up to an elevation of about 1,500 feet; but it seems to give the best results between 400 and 1,200 feet, and it requires an average humidity of from 40 to 60 inches a year, although by reason of the shape of its leaves, which gather the ambient humidity, it thrives and responds best to light but frequent showers rather than to heavy rains further apart, or to artificial irrigation; and these are precisely the conditions it finds in the districts where its culture is most successfully carried on.

SOIL.—Pineapples thrive in light, preferably loamy or sandy soils, well drained, and such are the red, easily tilled soils of Wa-hiawa, and the volcanic ones of Hawaii and Maui. The only thing lacking in the earths of this archipelago, is lime, which it will be necessary to give to the pineapple beds after a few years of cultivation, together with phosphates and potash, the necessity and use of which has already been demonstrated here through the cultivation of the sugar cane. There are, however, in these islands, certain soils,—especially some blue and nearly black loams,—in which the pines refuse to grow; some of these soils are too acid, and in others the percentage of manganese they contain makes them unfit for ordinary vegetation.

VARIETIES PREFERRED.—The variety which has been adopted by planters of Oahu, in preference to all others, and to which seems due to a great extent the superiority of the products obtained, is the one known under the appellation of "Smooth Cayenne," of which we appear to have two sub-varieties, one imported from Florida and Madeira, and the other, not quite as good, from Australia. It is now a proven fact that here the fruit of this variety is of excellent quality and reaches a respectable size, from four to five pounds, tho' some frequently attain from 8 to 12 pounds, and some have even been gathered weighing up to 20 pounds; moreover, it stands transportation well, so that it can be successfully used for the exportation of the fresh fruit, as well as for producing excellent preserves. Furthermore, the "Smooth Cayenne" has the very precious advantage of not bearing, along the rim of its leaves, any of the sharp thorns which "adorn" other varieties; and this fact renders much easier the work of cultivation around each plant. On Hawaii, however, the local, half-indigenous variety has been largely multiplied, which seems to be a degener-

ate "Red Spanish," bearing a smaller fruit, which is said to be better for exportation than for preserves; but I understand that the true "Red Spanish," lately introduced from Cuba, produces a much larger fruit.

PARASITES AND DISEASES.—Up to the present time, the pines in this country have kept comparatively free of parasites, and the few varieties of those that do exist, are easily kept in check by the ordinary methods used to subdue such pests. The most common parasites are two kinds of bugs, the "Scale-bug" (*Diaspis Bromeliae*) and the "Mealy-bug" (*Pseudo Coccus Bromeliae*), this last the most abundant, and whose multiplication is due principally to the workings of ants, which are said to carry and disperse them over the plants whereon they feed, in order to be able to use these bugs as milch cows. The most efficacious preventive of these bugs seems to be tobacco juice or pulverized tobacco, preferably the sweepings of tobacco manufactories, sprinkled over the plants at the rate of 1,500 pounds per acre. Kerosene emulsion also is used for spraying the plants; but the best preservative seems to be the fumigating by hydrocyanic gas of all cuttings and plants before their planting.

The well known disease caused by the fungus scientifically named *Thielaviopsis Ethacetica*, which causes in the nearly ripe fruit a kind of mould or acid decomposition, that makes it unfit for consumption, is not yet very prevalent on our Island plantations, and appears principally during very damp seasons; it is probably multiplied through the wounds and abrasions caused in the cuticle of the fruit, by the mealy-bugs, the carphophiles snails and flies. The spread of this disease is prevented by carefully destroying by fire all plants, leaves and fruit attacked, and by covering with a "Bordeaux solution" all the abraded surfaces and the parts cut off on the shoots which are detached for planting from the old plants. If these precautions are neglected, it is feared that after a few years of cultivation on the same fields, these parasites may multiply to such an extent as to endanger the existence of the plants. It is moreover probable that the soil itself will become exhausted after several years of planting on the same place, especially if no "fertilizers" are applied. Ordinary manure is injurious, as it has a tendency to rot the plants.

PROPAGATION.—The pineapple plant very seldom brings forth seed, and furthermore the seedlings which may be produced take at least ten years to bear fruit. The propagation of this plant is therefore always made from slips, five kinds of which are commonly known as:

(a) The “ratoon,” offshoot from a subterranean bud on the stem or trunk of the plant, which springs out of the ground at a little distance from the mother-plant; these ratoons,—which, when transplanted, produce very vigorous and rapidly bearing plants,—are limited in number, generally to two or three a year, but they continue to crop out as long as the mother plant remains sufficiently strong, so that they can be used for starting new plantations, if they are not kept to increase the second and third crops of the mother plant;

(b) The “sucker,” shoots or branchlets,—from two to six to each plant,—which spring from the buds in the axil of the old exterior leaves at the foot of the plant and bear the second crops; these shoots often begin to emit rootlets before their separation from the mother-plant, so that their successful transplanting is exceedingly easy, and they constitute the most commonly used method of multiplying the pineapple;

(c) The “slip” or “wing” cuttings, produced from shoots growing just below the fruit, but which remain on the old stem when this is gathered; these slips naturally take somewhat longer to get rooted and to bring forth their fruit, but they have the advantage of producing larger fruit than the ratoons; they are, however, relatively rare on our Smooth Cayenne variety;

(d) Some varieties of pines also produce what is termed the “crown-slips,” *i. e.* extra shoots, growing at the top of the fruit, below its crown; but these shoots do not exist in the Smooth Cayenne variety;

(e) The “crown,” or cluster of leaves growing on the top of the fruit, if properly prepared,—*i. e.*, by neatly cutting off the lower leaflets, to allow the latent buds to grow into roots, and by thus preparing a bare trunk, three or four inches in length, which is placed in the earth like regular slips,—will grow into strong plants; the only drawback to these, is that they take several months more than the ordinary slips to bear fruit; yet this

inconvenience is compensated by the fact that crown-slips give the largest fruit;

(f) Finally, it is said that, if the number of "suckers," and other shoots, is insufficient for the needs of the planter, extra slips can be obtained through the stem or "stool," from which the fruit has been cut off; for this purpose, the "stoos" are cut down, a little below the surface of the ground, (though taking care not to injure the "ratoons" from which the subsequent crop is expected), then stripped of all their leaves and old roots (while preserving the latent buds) and dipped into some insecticide, if necessary, and finally laid flat on beds of carefully pulverized soil, about two inches apart and all pointing in the same way, to be then lightly covered with fine earth, about two inches in thickness, or even less, if the ground is very damp, as there is in such cases some danger of these stumps rotting, if too deeply buried. If, in this operation, care is taken to place the most prominent buds uppermost, from these a crop of vigorous shoots, with numerous rootlets, will soon spring up, which can be split off into young plants, as soon as they have grown to a length of about ten or twelve inches. When all these shoots have been split off, the old stoos can still be taken up and replanted immediately in the same manner, turning upwards the buds which first laid downwards, and from these a new crop of similar shoots may again be obtained.

PLANTING.—Unlike "sisal," this new agricultural acquisition of these Islands, which is well satisfied with being planted in a small hole or crevasse, or even laid on the ground to start rooting, the pineapple requires the soil into which it is planted to be fully prepared, ploughed crossways, at least ten or twelve inches deep, and harrowed till well pulverized. The modes of planting vary in this country according to the planter's personal opinions, and also to the object in view. If an abundance of fine, large ripe fruit for exportation is required, as the plant responds generously to care, cultivation and hoeing, the shoots or slips are planted, either in single rows, separated from the others by an interval of six or seven feet, with the plants in the row two feet apart,—this giving from 2,500 to 3,000 plants to the acre,—or in groups of two rows together two feet apart, each such group eight feet from the others, thus placing about 4,000 plants to the

acre; some of the Wahiawa cultivators plant in single rows four feet apart, with the plants in the rows two and a half feet. These methods, which may be termed "wide planting,"—while allowing to the plants all the air and sunshine necessary for them to acquire the perfection of development, sweetness and flavor of the fruit, also greatly facilitate the cultivating of the intervals, the hoeing of the weeds, and the heaping up of the earth against the plants, which strengthens the growth of the ratoons and suckers of the secondary crops; moreover, the new plants which are to take the place of the old ones after two or three crops, can be planted with advantage in the middle of the intervals where the soil has already been well cultivated and consequently better fitted for a more luxuriant growth of new plants.

If on the contrary, a larger number of smaller fruits, of more uniform growth for canning, is desired, closer planting is preferred, for instance two feet apart in every direction, with proper roads to allow the gathering of the crops, and, in this manner, six, eight and even up to ten thousand plants are crowded into the acre, but these cannot receive the constant attention and cultivation allowed by wide planting.

The planting of the suckers may be done at any time between April and November, and the planters generally take them off from the mother plant when they have grown to about 12 or 15 inches long. The part which is torn from the plant is afterwards cut with a sharp knife, and all the small leaves or "scales," from the lower end upwards, three or four inches, are stripped off carefully, in order to enable the young roots that issue from the various buds, to spread quickly in the ground; those stem ends, thus denuded, are carefully planted in holes six inches deep, but not forced into the ground, because this is liable to bruise the end and cause it to rot.

CULTURE.—In the first method,—wide planting,—the intervals between the rows receive good hoeings with a cultivator, eight or ten times a year, and the foot of the plants is also weeded by hand, so as to eradicate all growths which are injurious to the proper development of the pine plants, while helping among them the multiplication of parasites, and especially the inroads of ants, and of the bugs they carry around.

In the second method,—close planting,—all harrowing and

weeding soon becomes impossible, even during the first year of planting, and the planter has to depend on the efforts of the plants themselves to overcome the surrounding vegetation; this process is employed on Maui, because there, the growth of weeds is very rank, this making the cultivating and hand hoeing very expensive; therefore, eight to ten thousand plants are planted to the acre, not only to stifle the intervening weeds, but also in order to prevent an excessive growth of the pine leaves to the detriment of the fruit, a thing which often happens in very fertile soils.

In all cases, a good drainage of the land is indispensable, because these plants suffer and die wherever water is allowed to stagnate. It is also advantageous, when possible, to shelter them from violent winds, and, to this effect, the rows of plants are traced as nearly as possible in the direction of the prevailing winds, so that they protect each other. During the operations of culture, it is desirable to avoid breaking the leaves.

CROP.—The budding of the fruit,—generally at first one only to each plant,—manifests itself from 14 to 18 months after the planting of ordinary suckers, and it takes about four months more to reach proper maturity; therefore, one reckons from 18 months to two years for the interval between the planting and the gathering of the first crop, and if the conditions of soil and culture are satisfactory, from 80 to 90 per cent. of the plants will bear fruit. Twelve months later, a second crop, generally more abundant and of finer fruit, is obtained on the “ratoons” and “suckers” that have been allowed to grow on and around the old plant, the growth of these being hastened after the cutting of the first crop. Then a third crop can be gathered the fourth year. In fact the vegetation of the plants might even go on almost indefinitely through their annual offshoots, but the fruit then becomes every year smaller and tougher, so that the old plants are generally pulled up and replaced by new suckers after the second or third crop, the quality and size of the first fruits obtained on the new plants compensating very largely the expenses of the new planting. The harvesting of pineapples, in Hawaii like that of many other tropical or semi-tropical plants, is obtained in two different seasons, from June to September—the largest—and from

November to March, this last being usually about one-fourth of the first.

Experiments have been begun, similar to those for amputating the poles or flower stems of the sisal plants, on the merit of cutting off the crown of leaves on the top of the pine fruit before it reaches maturity; but no conclusion seems to have been reached, some saying that the leaves of the crown are necessary to bring up the sap into the fruit and make it juicy, others contending on the contrary that those leaves thrive at the expense of the juice of the fruit, and that, the more vigorous those leaves become the more woody is the internal stem of the fruit; others again fear that the cutting off of the crown will open the fruit to the inroad of parasites and blight. There is no doubt, however, that daily experience is teaching our planters many points, "wrinkles," or secrets, for better growing the plant and taking advantage of its fruit.

The quantity of fruit gathered depends naturally on the number of plants to the acre, which varies, as mentioned, from 2,500 to 10,000, while the size and weight of the fruit depends rather on the fertility of the soil and the cultivation. Proper care may increase the crop from 6 to 25 tons per acre, but, on the "wide" plantations of Wahiawa the average is expected to be six or seven tons. The value of the fruit depends on its weight and quality, and the prices realized vary from \$20 to \$27.50 a ton.

The cost of first establishment is estimated from \$75 to \$80 per acre, and the cultivating, up to the first crop, \$70 more, while the first crop will realize from \$190 to \$250, after which six or eight thousand suckers can be taken off and sold at present price of \$20 a thousand. The expense of the third year's cultivation does not amount to more than \$50, while the second crop will bring in more than the first, and the third a little less, so that, in four years the planter ought to have realized a net income of \$380 to \$400 per acre.

DISPOSING OF THE FRUIT.—As shown above, the sale of the fruit, either here or abroad, takes place in two ways: the ripe fruit—which is the most appetizing form for consumption—and the preserves. The sales of both in America increases each year. The ripe fruit, however, sells less rapidly than the preserves, and this is rather to be regretted since it is the fresh fruit that is most

appreciated, and serves to popularize the preserve, which is used only where the ripe fruit cannot be obtained.

EXPORTATION OF FRESH FRUIT.—For this purpose the medium sized fruits find a more ready sale because they can be sold cheaper; from three to five pounds being the best weights. The larger fruit ranging usually from six to eight pounds (though some have been exported weighing more) constitute a luxury, with less buyers; consequently they are more difficult to sell, while requiring special care in packing.

The exportation of our ripe pineapples has taken place, so far, in two directions only, San Francisco and the country back of it, and Vancouver and other points on the Puget Sound. The prices obtained in San Francisco vary according to the abundance or scarcity of the local fruits, the average being from \$80 to \$100 per ton. North, and especially in Vancouver, better prices rule, ranging from \$3 to \$5 per dozen, which represents from \$120 to \$200 per ton, and the trade there is growing yearly, so that one exporter who, in 1903, sent to Vancouver fifteen dozen pines per month during the season now makes a monthly shipment of over 3,000; and the total monthly consumption of Hawaiian pines there is now said to exceed 10,000 fruits. There is certainly a grand future for the exportation of ripe fruit, and some planters of these islands claim that more profit can be realized from this traffic than from the sale of preserves, though there is also more risk of loss, without taking into account the trouble of packing and of disinfecting for the California coast. But the causes really preventing the full extension of this exportation are the inconveniences, delays and irregularities of transportation. In effect, the ripe pines spoil, if, placed on deck they get wet by salt water; between decks they get heated and sweat, thereby getting unsaleable. Nor do they stand transportation in cold storage if the temperature gets below 50°, because in coming out of freezing point they turn black. They require essentially,—after careful selection and proper packing in crates with dry straw or grass,—to be kept in a dry place provided with strong artificial ventilation which requires special provision on board the carrying ships. But above all the fresh pines require to be gathered and shipped *as soon* as they attain a certain degree of maturity,—about two weeks before the time of their full ripening,—and so

far our steamers have been too few, too irregular and at too long intervals between departures, thereby causing the loss of all fruit that could not be shipped at the proper time. This is therefore the most serious obstacle to the growth of the commerce of ripe pines, and can be surmounted only by proper transportation facilities, such as would accrue if Congress finally became wise enough to modify the absurd, unfair policy of applying to these distant islands the coastwise shipping laws, whereby no foreign bottoms can be taken advantage of to carry cargo from here to American ports. One can venture to predict that the exportation of our fresh pines would more than double from the day when frequent, rapid means of transportation would be assured, though the present cost of transportation of the fresh fruit is excessive as compared with that of preserves, this cost being \$3.50 per cubic ton space, corresponding to about \$8 per ton weight, while preserves pay but \$3.50 per ton weight.

The fresh pines sent to California are also subject to another annoyance, which does not exist for those sent North, i. e., fumigation to destroy all parasites, especially of the mealy bug. This precaution at first was made in San Francisco at the cost of five cents per box, irrespective of size, but the growers found that, aside from this expense, this operation caused neglect of the fruit and delays in its further transportation, whereby many shipments were spoiled, so they decided to fumigate here in an hermetically closed room before shipment, the operation being done with cyanhydric acid gas, at a cost of about one dollar per ton of fruit. The boxes are, however, still opened and inspected upon arrival in San Francisco and refumigated if any parasites are found still alive. The fruit not destined for San Francisco is then repacked, after sorting out those that may have decayed or become too ripe, and sent out to their further destination, reaching Chicago in 21 or 22 days, in perfect condition of preservation and ripeness, while some have been sent successfully to Washington, Philadelphia, New York, Boston and St. Louis. Some of our enterprising planters have even inaugurated, usually through Wells, Fargo & Co., a regular direct "delivery service" for all points in the United States; the fruit is prepaid from here to San Francisco and from there the customers pay the expressage, the charges of which vary from 25 cents a box in San Francisco, to 40 cents per 100

pounds to Oakland, up to \$6.50 to New York. The railroads as far as Chicago have been willing to aid our growers by allowing the special rate of \$1.50 per 100 pounds, with 0.85 additional for cold storage. The fact that renders such a lengthy transportation possible is, that pineapples share with apples and pears the keeping property of ripening slowly after picking; though, of course, if gathered too green, they do not ripen properly, but get flabby and wrinkled, and fail to acquire perfection of taste, sweetness and fragrance. Therefore for shipment abroad they are always very carefully selected; only the full grown, free of defect and above all of bruises, being chosen, because the pines contain ferments which hastens the fermentation and decomposition of all abraded surface and sours the pulp.

Among the fruit thus sent far distant, some may arrive yet unripe; these must be laid in a dry room conveniently warm until they get to be of a rich yellow color, and in so doing they must be made to rest on their crown, not on their base, so that the juice may be thus forced to disperse uniformly through the whole fruit; it does not seem advantageous to hang the fruit by a string; whereas, on the contrary, if it is desired to keep and retard the maturity of a fruit already in a fit condition to eat, it must be kept in a cool place a few degrees above freezing point up to the moment when its full ripeness for immediate use is obtained as above.

MANUFACTURE OF PRESERVES.—The exportation of Hawaiian preserved pines has so far been directed mainly to San Francisco, very little to Puget Sound. But Omaha, Chicago, New York, Brooklyn and London are the principal distributing centers, and the large concerns of those cities already furnish our canneries with their labels marked "Hawaiian Pineapples." Last year the firm of Hunt Bros. (one of the most important of San Francisco—who handle yearly over eight million tins of various preserved fruits—and who are also the agents of the pineapple cannery of Honolulu) sent 6,000 cases of the Honolulu preserve to London, and other shipments have been made to the same city by other local firms, all of which have met with a most favorable reception and ready sale, so that, the superiority of our produce having been already recognized and fully appreciated there, we may confidently expect a large increase of orders for this year's crop.

The transformation of the fruit into preserves is obtained through a complicated system of machinery, and the "Iwilei" cannery of the Hawaiian Pineapple Co., which boasts of being the largest and best equipped in the world, will serve as a model to describe the process. This cannery employs 300 hands all the year round, and this number runs up to 800, working day and night in the rush of the maturing seasons. Among the 300 steady workers—a large number of which are Portuguese—one-third consists of women and girls, and the rest men and boys, while the workmen employed in cultivating the fields of the same company at Wahiawa are principally Japanese, who have proved themselves the best workers for the kind of labor there required. All the workmen who have to handle the pines with their hands are furnished with special rubber gloves, which constitute for the company an item of expense of over \$2,000 a year, but which not only preserve the workers from the corrosive action of the juice on the skin and enables them to do better work, but also ensures for the consumer perfect cleanliness of the product.

The Iwilei cannery handles more than half the total production of the islands, and more than 70% of the pines grown on Oahu. Its present working capacity is about 125,000 tins of 2½ pounds each every twenty-four hours, this representing the daily handling of from fifteen to twenty wagon loads each containing from five to six thousand pines, from which results daily about 300 tons of waste which must be immediately destroyed. Of course these quantities are reached only during the height of the season, and yet the capacity of this establishment is to be doubled for the season of 1909, as they expect to manufacture at least four million cans.

The manipulation of this vast amount of fruit at Iwilei is done almost entirely by automatic machinery of the most ingenious description, run by steam, the human hand touching the fruit only to sever the crowns and adapt the pines to the first machine, which resembles a turning lathe, and on which each pine is submitted to a few rapid revolutions against a sharp knife which quickly pares off the thick peel up to the root of the "eyes." Forty of these machines are now in use at Iwilei. The fruit thus peeled passes immediately to another machine, which with equal rapidity, cuts out the middle fibrous core, and then to other ma-

chines which sort the fruit into various sizes, or reduce them to the exact diameter of the tins. During these operations considerable portions of the fruit—40% usually, though the proportion varies according to the size of the fruit—are cut off. These portions, being the outside ones are the ripest and best flavored; but they are not altogether lost, being utilized to make what is known as “grated” or “crushed” pineapple, the flavor and taste of which is generally more exquisite than that of the slices.

After its reduction to the size of the tins, the fruit is quickly sliced up by being pushed against a series of stationary knives. It is then ready to be placed in the tins, this work being done by women, to whom they are brought automatically. As soon as the tins are filled, they are carried by an endless belt through ovens which heat the fruit and expel the air; they then pass under taps which automatically fill twelve tins at a time with boiling syrup, made with the juice of the fruit and the best cane sugar, 300 bags of which are used daily. Then another machine places and solders the cover of each tin when it is taken up by another endless chain and plunged into large containers of boiling water in which they remain from fifteen to thirty minutes, (too long cooking spoils the quality and flavor of the preserves); at the same time the tins are all tested and those which do not appear to be hermetically sealed are sent back to be refilled. Then the tins are allowed to cool; labels are placed on them by girls, and packed into convenient boxes, usually two dozen tins to the case, when they are ready for shipment.

The complete manipulations of the fruit grown on an acre of land cost last year on an average of \$489.80, \$200 of which were paid to the growers, but this year the Hawaiian Pineapple Co. does not buy the fruit of outsiders as the crops of their own fields are sufficient for their present output of canned goods.

The cans used by the Iwilei pineapple works are manufactured in an adjacent building, by a branch of the “American Can Co.,” which supplies a large number of preserve manufactories in various parts of the world. This branch, which is also equipped with a variety of ingenious machines, employing a minimum of 70 workmen, produces at present from forty to fifty thousand cans per day, and expects to double that output before the close of the year. The present quantity produced consumes from eight

to ten thousand pounds of sheet tin and over 200 pounds of solder. The tin sheets are cut, bent, soldered, and covers cut out automatically, and the air tightness of all seams are duly tested before they are sent over to the adjoining cannery and distributed to the women who fill them with fruit, all these operations being carried through without the hand once coming into contact with the tins. This can company also furnish tins to the Kauai canneries as well as to those of Oahu.

VARIETIES OF PRESERVES.—The pineapple preserves are manufactured in the following forms: Whole fruit, sliced, crushed, grated, marmalade, sherbert and pickles. Pines too large to be economically sliced are often cut into squares, cubes or dices; and then, such pieces being cut longitudinally (not diagonally as is done with the slices), this makes them more tender and mellow, melting in the mouth, by avoiding any of the tough, pithy center portions, so that they constitute a superior quality, in the same manner as meat is more or less tender according as to whether it is cut lengthwise or across the grain.

From the juice which runs out naturally from the fruit as it is being sliced, an extra good syrup is made, which is excellent for flavoring ice cream, sherbert, or pastries; an inferior quality of juice is also made by crushing the peeling and other waste fragments under a heavy roller, as is done with sugar cane, and the dry cake of refuse is burned. Let it be added here that pineapple juice is said to be the best thing to give diphtheria patients.

Before leaving the subject of pineapple preserves, it will be in order to notice that, by reason of the natural acidity of the Hawaiian fruit, it would be preferable to pack these preserves in glass, rather than in tins, which, in spite of every care in the choice of the material and in the manufacturing, are often corroded after some twelve months time, whereby a metallic taste more or less pronounced, is taken by the fruit, whose flavor is thereby much impaired. Unfortunately the use of glass is more costly, thereby increasing the price of the product so that the fruit thus packed, although of superior quality and flavor (which it retains longer without change), is not as popular; consequently but one or two concerns, so far, put up their preserves in this manner.

It is rumored that, in order to give more constant work to

its permanent employees during the dull seasons of pineapple growth, the Hawaiian Pineapple Co. may undertake the canning of other local fruits; but it is certainly an object of interest to all canneries to arrive at a better utilization of the now wasted juice and fruit refuse by having the same distilled into alcohol, which is said to be of satisfactory quality if properly manipulated, as well as by the manufacture of a table vinegar, which can be made of excellent quality, provided the peculiar flavoring ferment of the fruit is duly eliminated. It is not doubtful either, that as a result of the enormous increase of our pineapple fields and of the greater amount of vegetable remains thereby produced (the necessary destruction of which causes much trouble and expense to the growers), they will soon be obliged to look into the methods of utilizing the fiber contained in the pineapple leaves, a ton of which will furnish at least sixty pounds of fiber,—the quality of which is said to be excellent though rather short,—but which is at present allowed to go to waste. This fiber is already extracted by the Portuguese growers in Madeira, and utilized in the manufacture of thread for some of the fine lace work which is a well known specialty of that island.* It may also be that, if nothing better, the leaves and stalks would make good paper material.

The selling price of pineapple preserves in the United States, like that of fresh fruits, seems to be governed to a great extent by the condition of the crops of other fruit, the pines obtaining better prices when those are scarce. But, for Hawaii the great question for the future is the possibility of economizing on the expenses of cultivation and manufacture so as to permit a reduction on the prices which now rule. It is a fact that while the pineapple is sold in Honolulu, extra quality, at eight cents a tin, the Singapore tins are sold in Paris at eleven cents, so that while the Singapore tins are worth in London from 4/ to 4/6, the Hawaiian tins must be sold from 8/ to 8/6, and such a difference, in spite of the superiority of our article, is a serious obstacle to the disposal of our product in Europe. London is known as the greatest distributing center of canned goods. Liverpool coming second; consequently goods intended to reach the

* It is said that a very cheap but effective machine for extracting this fiber by hand has been invented by a Mr. Duchemin, 35 Avenue l' Bretenil, Paris.

European trade must be produced here in such condition that they may be sold at about the current prices of London and Liverpool. Of course, the Hawaiian preserves do have in their favor the superiority of quality, and this is what our growers depend upon principally since they know they cannot fully compete in price with the Singapore product, which, although inferior in flavor, are produced by Malay or Chinese growers, using very cheap though fertile lands, with labor which is satisfied with beggarly wages; everything, in fact, being dirt cheap, while in Hawaii everything is extra dear. Therefore, while the Hawaiian product will be preferred by those who can afford to buy the best goods, and the Singapore ones by those who prefer the cheaper qualities, yet, as said above, the Hawaiian planters will have to practice the severest economy, not only in the raising and preparation of their pines, but also in carefully avoiding all unnecessary expenses of agents, "go betweens," and of transshipments,* so as to lower their prices as much as possible if they wish to reach the European market to any large extent.

COMMERCIAL REPRESENTATION.—In the interest of foreign dealers it may be well to give here the present list of agencies of our various growers, which is as follows:

Producers, etc.	Local Agents.	Foreign Agents.
Hawaiian Pineapple Co.		Hunt Bros., San Fran.
Wahiawa Cons. Co.	Castle & Cooke.	Peabody, London
Pearl City Co.	T. H. Davies & Co.	C. P. Jackson, Liverpool
Eames & Co.		
Thomas & Co.	Brewer & Co.	Armesby, San Francisco.
Clark Farm.	Byron O. Clark.	
Kauai Fruit Co.	T. H. Davies & Co.	C. P. Jackson, Liverpool
Haiku Fruit Co.	Alexander & Baldwin.	Calif. Fruit Co., London
Hilo Fruit Co.	T. H. Davies & Co.	C. P. Jackson, Liverpool
Capt. Cook Co.	Kona Development Co.	

* NOTE—It might be suggested here that the French Co., "Chargeurs Réunis," whose steamers of the "Tour du Monde" Line, return from here direct to France, might prove of great advantage to our pineapple canneries for avoiding transshipments of goods sent to Europe. For a like manner, the new system of direct correspondence inaugurated by the "American-Hawaiian Co.," via Tehuantepec, will certainly benefit our pineapple growers.

THE STREETS OF HONOLULU IN THE EARLY FORTIES.

[Continued from the ANNUAL of 1904.]

BY GORHAM D. GILMAN.

SOME years ago, I contributed to the Hawaiian Annual, a description of the streets of Honolulu as they appeared during the early years of my residence there over sixty years ago. In concluding the article, I expressed the hope that some of the descendants of the missionaries would take up the story and relate the early appearance and life of the "Mission." As I have not seen anything relative to it, I venture to assume myself the somewhat doubtful task, relying upon memories more than half a century old, of describing the Mission premises, as they appeared, as I first knew them in 1841.

To take up the narrative from a point where I stopped in my previous article, continuing our way along King street, the first house that we come to on the left, on the corner of Punchbowl street, a well-built coral house, was occupied by Mr. Henry Dimond, the binder for the mission. Further along on King street, opposite, we come to the old Kawaiahao Church. Although its history has been written several times, and I may make use of material previously printed, still I think the story of the old church deserves a place here.

The early missionaries, Rev. Hiram Bingham and associates, who arrived at the Islands in the Spring of 1820, were intimately associated with the history of the church. The early coming of these pioneers in the work of Christianity was not very cordially welcomed by either the inhabitants of the Islands or the company of foreigners, who had settled there from time to time. It was a question whether they would be allowed to remain and prosecute their work. They obtained a reluctant permission from the king to remain a year, and

were furnished with houses mostly made of straw somewhere along Beretania street.

At the expiration of a year, they succeeded in obtaining from Governor Boki permission to build their houses and establish their premises at what became familiarly known as "The Mission." So far as we can judge from what records we have, a part of the straw house in which they lived was set off by a partition as a school room, and in this school room the first church services were held.

The first church was a thatched building standing near the site of the present stone church, in size fifty-four feet by twenty-one, and was dedicated in September, 1821. The simple service of the Congregational order seemed to attract favorably the attention of the people and crowned the efforts of the missionaries with gratifying success. This little church, however, was burned down, and a new and larger one was erected on the same spot. This was increased to a building seventy-five feet by twenty-five, seating about six hundred people,—still rudely constructed with a few or no adornments. With a small platform rather than an elevated pulpit it answered its purpose.

A third church was called for on account of the second being too small, and was constructed of the same native material,—posts, sticks and straw. It was built in 1829, and was one hundred and ninety-six feet in length, sixty-three feet in width, enclosing an area of twelve thousand three hundred and forty-eight square feet, with a capacity of seating three to four thousand people.

As most of the native houses seem to have passed out of existence in Honolulu, it may not be amiss to give the construction of this church. The people were readily enlisted in the service of the re-building and willingly gave time and labor to secure the material. The long posts which formed the two ends of the building were from fifteen to sixteen feet in length, set three or four feet apart into the ground, inclining inwards. To the center post was attached parallel to the ground, what we would call the ridge pole. The sides were of poles sunk in the ground in the same way, inclining inwards, to which were attached the rafters, one end of which rested upon the ridge pole and the other by a peculiar native contrivance was

attached to the groundposts. The rafters were held firmly in their place, by a native twine made largely from the fibre of plants, which grew in plenty about.

This framework was covered with some sticks six or ten feet long of young growth, stripped of leaves and branches and tied on to firmer posts at about one inch apart. On this framework was attached bunches of pili (grass), a growth which is very tough, laid on in tufts as we lay on shingles, which made the building water-tight. (The house that I resided in at Lahaina some years later was built by King Kamehameha I for his daughter. During my occupancy it began to leak so that it required to be rethatched. I was told by the old people living there that what I had been obliged to remove had been on it for forty years.)

The furnishings of this church were of the most primitive kind. Rude settees, benches, comparatively few chairs, almost anything that would do to sit on, were pressed into service. The pulpit was a gift from New Haven, and was supposed to represent the old theology of that famous theological institution from which many of the missionaries graduated. On my arrival in 1841, the old building had become sadly delapidated. Most of the sides of the thatch had been eaten off, for all the roaming cattle had perfectly free access to it, and not a few of the natives rode to service on donkeys, who feasted themselves on the thatch of the church, while their masters were enjoying the gospel feast.

At the time of my arrival, I used to esteem it a special privilege to attend the afternoon services at the old church and hear the Rev. Richard Armstrong preach. He was one of the best American speakers of the native language that I ever heard. He had caught the idiomatic expressions, gesticulations and manner of emphasis, and altogether was proficient in the Hawaiian language. His son, William Nevins Armstrong, told one time, at the dinner table at a Mohonk gathering, this little incident in connection with the pulpit. The two boys, himself and his brother Sam (afterwards General Armstrong) were taken up into the pulpit where they were supposed to be under the watchful eye of their father, and kept within bonds in due respect for the sacred place. Becoming in some way

interested in a matter of dispute, from words they came into closer contact, very much to the amusement of the congregation seated below. Mr. Armstrong in his earnest attempt to instruct his people was apparently oblivious to the boys behind him, until he noticed the increasing smiles of amusement on the faces of his congregation, when, to his amazement, as he turned, he saw the boys in their contest. Separating them as far as he could, with a warning gesture of what might come afterwards, he proceeded with his sermon.

The time to replace the old building had come. Its side walls had been almost entirely stripped so that there was no need of doors to go in and out, and the winds of heaven blew freely through the place. A new church was sadly needed, a building that would stand the effects of time. So preparations were made for the building of the present church. Of course, there were some preliminary arrangements, conferences and plans, but at last the day came of the grand conference for decision. On that day, the people gathered joyfully, a large interested company. The king and members of his court, high chiefs, those of lesser grade, and the people generally, gathered all with one accord, to plan for the new House of the Lord.

After due discussion, and at the opportune moment, subscriptions to the building fund were called for. The first subscription was offered by King Kamehameha III., the very generous sum of \$3000. Others followed, but not in such munificent gifts, until the sum of \$6,000 was subscribed as a beginning of the building fund. The material at this time was largely from the coral reef abreast of the town where there were large fields of it growing in varied thickness. The coral was cut in blocks two to three feet long, two feet in width, and larger and smaller sizes, in blocks weighing from two hundred to twelve hundred pounds. Lime was procured by burning the coral, which gave an excellent quality of the product. Native timbers and rafters were largely used, and other lumber came from the northwest, the purchase of which was generously helped by all classes including the foreigners of the town.

It is worthy of note, that the beginning of the building of this old historic church was in the days of ancient feudalism, when the king, in his supreme right, was acknowledged to

have the ownership,—not only of all property, but of all persons and complete lordship over the people. Of course, as in ancient feudal times, these people were under, not only the king to whom they owed supreme allegiance, and to the lesser chiefs, who held their rights under the king, but also to the overseers of the chiefs and those who exercised authority over them, so that work was generally performed in payment of all obligation due from the people to their superiors. Consequently gangs of men were formed, graded from the king's men to the overseer's men, all of whom were obliged to give a certain amount of time—a day's work towards helping to erect the building. The heavy blocks of coral were generally brought from the way-side to the building spot, strung on poles or drawn by two or more men, according to their weight. Lime was also brought much in the same way, and thus in ancient form, the king as the leader of all under the ancient and somewhat tyrannous custom, the building was begun. It was finished in a few years, but under an entirely different system.

Between the commencement and completion of the building of the church the time had come when the king of his own accord declared the system of feudalism to be at an end. Any man who could show the possession of his land for a reasonable length of time as a family possession received from the Court of Land Claims a certificate entitling him to a deed bearing the stamp and seal of state as a free gift to him and his heirs forever. So feudalism passed away under the influence of the incoming of christianity, and the church was dedicated by a comparatively free people, who made a willing offering to the God they worshipped.

The building as it now stands is a monument well to be preserved, for around it gathered some most interesting incidents in connection with the Hawaiian race. In and out of its portals have gone the merry marriage groups, and in and out of its doors have passed the saddened ones who have borne away the remains of those who had been their former leaders.

Leaving the old church, beyond it on the Waikiki side is a little sacred spot of ground scarcely noticeable, perhaps, from the way side. Here lie the remains of old and young,

missionaries and their children, almost beneath the shadow of the old church where they had worshipped, and where some preached and some were baptized, awaiting the coming of the resurrection.

Beyond the church premises is a large house, generally known as the Chamberlain house, which is, perhaps, the largest residence in the missionary grounds. Mr. Chamberlain was the financial man for the mission and transacted most of the business in worldly affairs for the brethren. A little makai of his residence was the mission store house, where the goods ordered for the different families from Boston were received and stored and dealt out in accordance with the requirements.

Passing on towards Waikiki we come to the original mission house. This was a frame building brought out on the vessel, which took the missionaries to the islands, but which they were not allowed to erect until they had been on the islands more than a year. There was a certain class of foreigners, who did not relish the incoming of the missionaries, and who used every effort to persuade the king and chiefs not to allow them to remain; a class given entirely to gain and pleasure, and so far as we know or have any record, making no effort in all the years (from the time of Capt. Cook to the arrival of the missionaries) to elevate the Hawaiians in morality, religion or good government. This residence still stands, owing to the generosity of Mr. C. M. Cooke, and is likely to be maintained for many years to come, we hope, as a memorial to the eminent worthy men and women who have occupied it. It has probably sheltered more families during its existence than any other building in Honolulu.

Still further on the same side was one other wooden cottage which was occupied also by different members of the mission from time to time. I think at one time it was the home of the Rev. Daniel Dole, the father of Judge Dole. Crossing the street and beginning at the house opposite the Chamberlain's were a number of residences occupied by different missionary families at different times. Among others, Dr. Judd, whose field of practice extended to the whole island of Oahu, and as he was the only physician attached to the mission, his practice did not allow him to become rusty. A few years later he was called upon to fill a very important position

in Hawaiian affairs. Difficulties having arisen between Kamehameha III. and some foreign residents, it was exceedingly necessary that the king should have some one upon whom he could depend, who might act as an intermediary between himself and others in matters of business. The Doctor, who was a fluent Hawaiian speaker, made a first class interpreter. During the interesting time of Lord Geo. Paulet's occupancy, the Doctor occupied a most trying position, yet his devotion to Hawaiian interests was never doubted and the country today owes a large share of gratitude to him for his disinterested and able conduct of public affairs during the most trying period, perhaps, in the life of the islands.

Another family who had no small influence on national life was that of Mr. A. S. Cooke and wife, who from a little cottage on the Mission grounds were called to take charge of the Royal School for those boys and girls who were growing up in expectation of occupying the most prominent places of the kingdom. Four of the boys who received their education in this school came to the throne.

The Rev. S. E. Bishop informed the writer that in '38 or '39, at the time of his leaving for the United States for his education, there was not a blade of grass nor shrub of any kind growing on these premises,—it was nothing but a dry arid plain. This puts me in mind of a story told. When Mr. E. O. Hall, printer of the Mission, also a resident of one of the cottages, was crossing the street one Sunday morning with an empty pail to be filled with water for the use of his family, he was stopped by the constable and told he could not go on, but should return immediately as it was not allowable to do any work on the Sabbath; rather a strict construction of Mosaic Law and somewhat new in latitude.

In this little group was also located the printing house and bindery, out of which, it is interesting to note, nearly 1,000 different publications were issued during the life time of the mission press in connection with the A. B. C. F. M., furnishing pages that formed so important a part of instruction to the people.

It will be remembered of these missionaries of whom we are speaking, that there was no written language until they reduced one from the sounds of the language as spoken by the

people. It is narrated that at one time, when Mr. Bingham had occasion to send to his house for something, he wrote on a piece of paper what he wanted and gave it to a native to take and bring the article to him. The native did so and was very much astonished and inquired how it was that the paper talked as he did not say anything.

The missionary premises have changed materially in the mauka side of the street and of late years have been occupied by the Kawaihāo Girls' Seminary, recently removed.

There is one more building—which is the last as we go toward the plains,—the house of Mr. S. N. Castle, a home that can but be dear to those who were born beneath its roof and who bear the name of the highly honored parents who lived there. The house that was the Castle home, through the generosity of Mrs. Castle, was assigned for Orphaned Children. Mr. Castle was no ordinary business man. He was called to the ministry, but was also called and was most highly useful in a line of material interest which closely affected the welfare of the Mission. Had he remained in Wall street, he would undoubtedly have been a financier of note, but he saw fit to give his services with a whole heart in behalf of the Hawaiians. His integrity was so unquestioned, and we have it on good authority, that he and Father Damon were not infrequently called upon by Kamehameha III., when he was perplexed with difficulties and pressed with anxiety in matters that affected his kingdom. These trusted men were often summoned in the small hours of the night to escape observation and gave to the king most willing service in his perplexity. May I be permitted to say that those who were privileged to know Kauikeaouli (Kamehameha III.) knew him to be a man of strong influence for good, and although early educated among a class of people who sought his ruin, to use him rather than for his good to elevate him, he still possessed a kindly heart, a most genial nature and an honest and most earnest desire to do good for his people.

Beyond the mission premises there was but one other building, the residence of Mr. and Mrs. A. Johnstone, who were the teachers in the Oahu Charity School, of which I wrote, I think, in my former communication. Beyond this was Kulaokahua, or the Plains, a dry, dusty waste without a shrub to

relieve its barrenness. There were a couple of hau trees on the mauka side of the road covering the little cottage. On the seaward side, further out, was what was called "Little Britain,"—the residence in later years of Capt. Luce and Mr. J. N. Wright. Between these two places, nothing but a most exceedingly dreary parcel of land with here and there a horse trail as path-way.

In the former article, I neglected to speak of that part of Hotel street, which ran from Fort street toward Ewa. It was worthy of note for one thing if no other. On this street opposite Thompson's saloon was the cabinet maker's shop of Wood & Parke, two finished workmen, who made furniture from the beautiful koa of the islands. This shop was the frequent gathering place for the class of residents who wanted a meeting place outside of a saloon where matters could be talked over, jokes enjoyed and good fellowship be always found. If any excuse is necessary for introducing at this late day the subject, it will be to mention the name of Wm. C. Parke, who was for many years marshal of the islands, a position which he was very loath to take, thinking himself (with his usual modesty) not equal to it, but he proved himself to be one of the most valuable of the king's staff. He was a man of undoubted integrity, whom no one could buy. No kind of influence could change his honest opinion, and no promises would induce him to violate the confidence which was imposed in him. He was a most true and faithful officer of the government. Under the influence of Gibson and contrary to the king's word given personally a few hours before, he was deprived by a midnight's summons of the place he so long filled, but his character and worth were signified by the action of the Supreme Court in a manner which thoroughly vindicated him from the base charges that were brought against him. I pay this most willing tribute to an old friend, and there are those living at the present time who will well remember him for his many noble qualities, as a true American and yet loyal to king and country.

EXCURSION TO THE MOUNTAINS OF MAUI.

Extract from M. S.—“A Menzies’ Journal in Vancouver’s
Voyage, 1790-1794.”*

BRITISH MUSEUM, MSS. DEPARTMENT.

[This is said to be the first time this account appears in print.]

ON the eighth of March, 1793, we left Kealakekua Bay, early in the morning, and stood to the northward, close along the shore, which gave us an opportunity of seeing that this part of the island [Hawaii] “as far as the point of Kawaihae Bay, is in a high state of cultivation and rises from the water’s edge, with an easy ascent, to the woods which occupy the middle region of the sides of the mountains.”

* * * * *

“Off the south point of Kawaihae Bay we met several of the fishing canoes with a variety of fish in them which was purchased for small trinkets; the land about this point, though low, appeared to be so barren and rugged, with volcanic dregs and fragments of black lava, as to be incapable of improvement, in consequence of which the inhabitants were obliged to have recourse to fishing for their sustentation.”

* * * * *

“After the canoes all left us we turned our head to the northward and had light airs till we passed the northwest point of the island, when we were favored with a fresh breeze that brought us in with the east end of Maui, early in the morning of the 10th, when we bore away along the southern shore, with a steady breeze, till we came to Molokini, and there it became light and fluctuating in its direction, by the high land of Maui intercepting the regular trade wind. We had some canoes off from the latter island, but they brought no refreshments: indeed this part of the island appeared to

* Corrected as to Hawaiian names.—Ed.

be very barren and thinly inhabited. We had nothing but calm and variable gusts and flaws of wind all the afternoon, which we spent in passing between Molokini and Kahoolawe. Soon after dark we had a light land breeze from Maui and stood into the large bay on the south side of it, where we anchored for the night.

Having little or no wind we remained at anchor till about noon on the 11th, when a fresh breeze set in over the low land of the isthmus, with which we immediately weighed, and stood for southwest part of Maui, but as soon as we passed the bay, the high mountains on the western part of the island again intercepted the regular trade and left us nothing but light and baffling wind till about sunset, when we were favored with a light breeze off the land; and stood on till we came opposite to a village called Lahaina, near the west end of the island, and at a late hour anchored over a bottom of coarse sand, in a moderate depth of water, about a mile from the shore, which was a low sandy beach.

During the forenoon of the 12th, and the preceding night, we perceived a pretty strong tide or current setting to the westward. We this day had a good many canoes alongside of both vessels [i. e. "The Discovery" and "The Chatham"], which were mostly single ones: they brought no hogs, but abundance of large gourds, sweet potatoes, watermelons and some mushrooms, and plenty of fresh water in calabashes, which enabled us in a very short time to replenish our expenditure of that article since we left Kealakekua Bay.

We now had an opportunity to observe that the low land along the shore opposite to us was scattered over with numerous habitations, amongst a grove of cocoanut palms and other trees and behind them the country rose, by a steep ascent, to form exceeding high rugged mountains which occupied the center of the western peninsula of the island. These mountains are much broken and, as it were, cleft asunder by deep hideous chasms, which are woody, as well as their steep sides, but the tops of the mountains are entirely bare and rise in a variety of rugged and peaked forms high above the powers of vegetation."

* * * * *

"In the morning of the 14th Mr. Whidbey set out with two

boats, one from us and the other from the "Chatham," to examine the shore about the west end of the island, for good anchorage, and likewise the deep bay we passed at the low isthmus to the eastward of us. As these examinations were likely to prolong our stay, and as we were at this time upon the most friendly terms with the natives, I conceived it a fit opportunity of going on shore for two days to make an excursion up the mountains for the purpose of collecting plants, in which I was joined by a few of the gentlemen from both vessels who were incited from curiosity and the object of recreation. When our intentions were made known to the king he immediately ordered Kamauoha, the chief of Lahaina, and his own son, a boy of eleven or twelve years old, named Kuene, to accompany us, with a suitable number of attendants to carry provisions and every other necessary we might want.

We landed about noon a little to the eastward of the village, and directed our course up the country, for a deep woody chasm in the mountains, by a gentle naked ascent which was rather fatiguing in the heat of the day, but a refreshing breeze with which we were favored enabled us to sustain it. The track we now traveled over was pretty clear of large stones and the soil was of a reddish clayey texture, but it was so parched from its southern exposure to the powerful heat of the solar rays that it was cracked and fissured in every direction, and seemed, from its scorched and shriveled produce of grass and herbage to be incapable of any kind of cultivation.

We made no stop till we gained the edge of the forest, which was about three miles from the seaside, where we found a small village consisting of a few houses. Here our conductors importuned us to dine, and a pig being killed and got ready, together with yams and sweet potatoes, we partook of a hearty meal, after which we continued our journey and soon entered the verge of the woods where we observed the rugged banks of a large rivulet, that came out of the chasm, cultivated and watered with great neatness and industry, even the shelving cliffs of rocks were planted with esculent roots, banked in and watered by aquaducts from the rivulet, with as much art as if their level had been taken by the most ingenious engineer. We could not, indeed, but admire the laudable ingenuity of these people, in cultivating their soil with so much economy.

The indefatigable labor in making these little fields in so rugged a situation; the care and industry with which they were transplanted, watered, and kept in order, surpassed anything of the kind we had ever seen before, and showed in a conspicuous manner the ingenuity of the inhabitants in modifying their art of husbandry to different situations of soil and exposure, and it was with no small degree of pleasure we here beheld their labor rewarded with productive crops.

We entered the forest by a very rugged path, and after penetrating about two miles we came, in the dusk of the evening, to a cavern which the natives told us was the only place of shelter we could get to repose in for the night. They immediately strewed the bottom of it with small fresh boughs and leaves, and after kindling a fire, cooked some refreshments for us. A slight shower of rain falling at the same time made the wood very damp and the air so very chilly that the young prince who accompanied us could not endure it, but set out, at a very late hour in the evening, on a man's back, for the seaside, after promising to join us again next day: as the path he had to travel over was so rugged in a dark night which was rendered still more so by our situation, embosomed in a woody, deep, narrow chasm, with overhanging black precipices of immense height, on both sides, we advised him to remain with us, but to no effect; he said the cold would kill him before daylight. We felt it, indeed, so pinching, that we found it necessary to keep a very large fire burning before the entrance of our cavern all night, and laying ourselves down on our mat, with our feet towards it, and our bodies wrapped in a quantity of the island cloth, we enjoyed our repose pretty comfortable, till the chirping and cheering noise of numerous warblers awakened us in the morning by the dawn of day.

The wood here was not so much choked up with ferns and underwood as those we examined at Hawaii, but still was equally difficult and dangerous to traverse, from its ruggedness, hideous caverns and rocky precipices.

After taking some refreshment, which the natives were remarkably dextrous in getting ready and providing, we pursued our path, which, as we advanced, became more difficult and rugged, as we were sometimes obliged to scramble up steep precipices where a slip or false step would be attended

with the most serious consequences. At other times trusting our whole weight to bushes, and lowering ourselves down in situations equally dangerous. We were, however, led on from one difficulty to another, in expectation that we could by this chasm cross over to the other side of the island and then return to the vessels, in a double canoe, by the west end of it, but after penetrating with great labor and fatigue to about midway, we found it could not be accomplished, for about noon we got to the end of the path, beyond which, the natives told us, it was not only hazardous, but almost impracticable to proceed further, so, after viewing the situation, and seeing there was no probability of our succeeding, we sent some of our attendants back to the cavern to cook dinner for us, whilst we followed them at our leisure, botanizing as we went along, from the cliffs and clear spots on both sides of the path, and viewing the precipices on each side, of all others the most awful and tremendous we had ever beheld, for being now placed in the bottom of a deep chasm, not a quarter of a mile wide, walled in on both sides by immense precipices of perpendicular rugged rock, and overhanging cliffs forming huge mountains of great elevation, whose tops by their apparent near approach threatened, as it were, to crush us every moment in their ruins: in short it was impossible to look up on either side and contemplate the immense height of these natural walls without being chilled with terror at their majestic and awful appearance, for excepting a small space from over our head to the southward, the whole ethereal expanse was concealed from our view.

The cliffs for some way up were here and there adorned with small trees and overhanging bushes, but the upper limits of vegetation, which was evidently marked in a horizontal direction, on both sides, appeared at no great distance from us, and above that nothing was seen but disjointed cliffs and black rugged rocks piled in a variety of peaked forms, shining, in many places, with a glossy surface that evidently indicated their vitreous texture and volcanic origin, for in all our researches amongst these islands we had not yet met with any specimen of what we conceived to be a primitive rock or stone: all appeared to be the produce of some great volcanic

evolution, to which the islands themselves might owe their origin.

The ruggedness of this deep glen produced, as might be expected, at this height, some differences in the variety of plants to what I met with in the woods of Hawaii, but I was here equally unfortunate in not finding, at this season of the year, many of them either in flower or seed: what I did find, however, in a perfect state, were quite new and undescribed by any botanist whatever, which amply compensated my labor and fatigue, and the danger to which I frequently exposed myself in collecting them.

In our return down to the cavern we met the young prince who, we were happy to find, got safely to the seaside on the preceding evening notwithstanding its being so dark and late, returned according to his promise and bringing us a supply of provisions and fresh cocoanuts, so that we were enabled to dine sumptuously on the produce of the country, our beverage being from a pure crystal stream as it oozed from its source, which was a luxury we very seldom enjoyed.

Having spent the day very pleasantly in the forest, in botanical researches, we returned in the cool of the evening to the seaside, and at the village, engaged a double canoe which brought the whole party on board, when I presented the chief and the young prince with a piece of red cloth, each, and some other trinkets, and the other natives who accompanied us as attendants were rewarded for their service by a small assortment of beads, nails, and other trinkets with which they were so well satisfied that they were all desirous of being employed on a similar excursion next day."

ANOTHER ALII GONE.—Hawaiians are called to mourn another alii in the death in San Francisco, June 2nd, 1908, of Prince David Kawanānakoā, of pneumonia. The body was brought home June 13th and preparations made for an elaborate funeral. The former throne room of the palace, now Executive building, was assigned the family for the laying-in-state of the remains, whence the funeral took place Sunday, June 21st, with much Hawaiian pomp.

LEGEND OF PAALUA AND KAWELU.

BY HENRY M. LYMAN.

[From The Williams Quarterly of June, 1858. Courtesy of Curtis J. Lyons.]

HERE once lived on the island of Kauai an old chief who had a son named Paalua. When the youth was grown up to manhood, and had been instructed in all the arts of war, his father resolved to send him with a present to the king of Oahu. A large canoe was accordingly prepared. The gifts, carefully packed in leaves, were placed on board; and at evening Paalua embarked with fifteen followers and set sail for Oahu.

All night long the soft west wind breathed gently over the sleeping sea; and at early dawn the high table mountain of Kaala was visible on the far southern horizon; veering over their sail the voyagers ran merrily over the waves that sparkled under the rising sun; and directing their course towards the notch of Nuuanu, were soon in sight of the rugged precipices of Koolau, with the broad plains of Kaneohe lying green and fair at their base. Before the sun had commenced its downward passage towards the hills of Waianae, Paalua landed on the curving shore of the Kaneohe bay, in front of the village then occupied by the king of Oahu. As the strangers drew their canoe from the surf, four warrior chiefs came down from the royal enclosure, and intently regarded their movements. Paalua advanced to salute these veteran guardians of the coast, at the same time announcing his name and titles, which were no sooner heard, than with a yell of delight the warriors hurled their spears full at his breast, and rushed forward to welcome the son of their ancient friend. Highly gratified by this complimentary reception, Paalua proved his skill in the spear exercise by catching in his right hand the first flying javelin, with which he parried the second and the third, dexterously avoiding the fourth by a nimble movement of his body.

After this display of warlike prowess, he was escorted to the palace of the king who received the young chieftain with many professions of cordiality and esteem. The presents were then brought from the canoe and spread out before the king. He expressed much pleasure at this mark of friendship and gave orders for a feast on the morrow. Proclamation of the festival was at once made, and great was the consequent excitement. Everywhere were the king's messengers hurrying to the mountains after backloads of *ki* leaves and *awa* roots, or driving well-fed hogs to the place of slaughter, while the keepers of the fish-ponds drew up their nets full of the largest and choicest of mullet. The darkness of night caused no interval of leisure; for then were the *kalo* ovens heated, and the sound of the poi-pounder was heard even till daylight again glimmered over the sea.

In the early morning the young girls wove garlands of fresh leaves and flowers for the adornment of their persons, and the dancers and musicians arrayed themselves in all their finery. At the time of day when the shadows of the trees leaned no more towards the mountains, the people began to assemble in the cocoa-nut grove, and the steaming ovens were opened. Long then was the feasting and revelry; and when the banquet was ended the dancers rose up and delighted the assembly with the grace of their motions and the beauty of their forms. One after another paid their dues of reverence to the stranger, and then fell back among the crowd. At length the king called for his daughter Kawelu, and ordered her to dance before his guest. The people, at his command, retired a few paces as the royal maiden came forth. She was very young, and timid as a bird; but her beauty won the admiration of all. A *pa-u* of yellow feathers, bordered with red stripes, was wound about her waist; garlands of flowers twined around her arms, and clung lovingly to her bosom; cunningly carved ornaments of ivory were hung with many a shining braid of human hair upon her neck; and bracelets of dog's teeth clinked and rattled as she moved her feet and hands.

Thus arrayed Kawelu advanced into the presence of her father and began to dance, while the musicians beat time upon their drums, and the minstrels sang a *mele* in honor of her beauty and youth. Thus, for a little time, she moved alone through the measures of the *hula* till the musicians commenced a refrain in praise of Paalua, when a band of young girls dressed in a costume

similar to that worn by Kawelu took their places on either side of the princess, and together they whirled around the grassy circle. Round and round they flew, their shining tresses floating and streaming in the air, until the drummers ceased their tattoo in obedience to a command from the king. This was the signal for a conclusion of the festivities; and the people at once dispersed, while the royal party went down to play in the surf.

The king, when he thus presented his daughter before his guest, had no thought of any untoward results from so trifling a circumstance. The possibility of such a thing as love never once suggested itself to his thoughts. Kawelu was a mere girl, hardly yet grown to womanhood; and she had been, moreover, long since promised to Mano—the lord of Kailua. But notwithstanding these facts, of which the young people were entirely ignorant withal, love had entered their hearts; and in the evening, they found means of communication with each other. Paalua set forth in glowing terms the charms of his home in the vale of Hanalei, and entreated the gentle maiden to go with him on his return from her father's court. With all the enthusiasm of girlish affection, she assured him of her love, but would not be persuaded to leave her land for another, however lovely it might be. After many efforts to induce a different decision on her part, Paalua surrendered to the will of his mistress, and promised to adopt her home as his own, if she would but consent to their union. This proposal proved more acceptable; and it was soon arranged that on the morrow Paalua should formally ask in marriage the Princess Kawelu.

The young man arose at dawn on the ensuing morning; and in accordance with this plan, gave orders for the equipment of his canoes. The king remonstrated with his guest, and urged him to a longer stay; but Paalua declared that he must be on the voyage back to his father, who was old, and who would be alarmed if his son were long absent on this expedition. Finally, seeing that persuasion availed nothing, the king said:

"If you must now return, how shall we fill the canoe with gifts? The bird-catchers have not yet come from the mountain, nor have the fishermen brought any fish from the sea. Will the king of Kauai be pleased if his brother sends him a spear fashioned from the wood of the kamani, or a net woven with the threads of the olona?"

Paalua at once made answer: "The birds of Oahu are the birds of Kauai; the fish of the sea are alike from Hawaii to Niuhau; the kamani and the olona grow in the valley of Hanalei; and the men of Waimea are skilled in the carving of wood and the weaving of nets. Such gifts should not kings send to each other. My father, too, is old; and how can he rejoice in the sight of new things whose eyes are dimmed by the spray of the sea; but his son is young. Give him one small present—one easily borne in the canoe, and he will be content, for thus shall he know the reality of your friendship."

"In truth," replied the king, "your words are pleasant to the ear. Ask of me now some costly gift, and it shall be at once bestowed."

Then Paalua bowed before the old warrior, and said, "Give me your daughter Kawelu, for great is my love for the maiden."

At this unexpected request the countenance of the king grew dark like the clouds that drive before the south wind, and he made no reply. What could he say! How should he avoid giving offence to his guest! He finally answered:

"My heart is made heavy by your words. How can I part with the flower of my land! Ask some other favor, or give time for consultation with the gods."

Paalua readily consented to a postponement of the king's decision; and in the meantime, ordered his men to let the canoe remain under its covering of cocoanut leaves until he should give farther directions concerning the voyage.

The king was greatly perplexed. His daughter was already promised in marriage, and the lord of Kailua demanded the strictest redemption of the pledges which he held; but how could he refuse the son of his powerful friend, the king of Kauai. Fear and pride both prompted him to attach this young prince to his family, while a regard for his promises, and the threats of the lordly Mano, caused him still to waver and look with dread at the consequences of openly affronting a neighbor who could inflict bitter injury in retaliation.

While thus tortured with varying doubts, Mano approached with a plan which he thought would relieve all parties from embarrassment. "High up in the cliff," said he, "is a cavern which I found while searching for the nests of the tropic bird. Difficult of access, unknown to the stranger is that hiding place. There

let us conceal the flower of the forest, and then bid this voyager seek her out. Day after day may he search; but never shall he find her who is to be the wife of Mano, for not yet has the man been born who, unguided by my words, can climb to that cave."

The king was pleased with this device, and, going to Paalua, informed him that he had consulted with his gods, and they had answered his inquiries by directing that Kawelu should be hidden in a grotto high up the face of the precipice, and that she should become the wife of Paalua if he could discover the place of her concealment before the going down of the morrow's sun. On no other conditions might their union take place. The young prince's heart well-nigh failed him, as he looked up at the towering crags piled one above another till their summits were lost amid the sweeping clouds; but there was no other alternative, and he consented to make the trial. It was then arranged that during the coming night Kawelu should be taken by her father to the place of concealment, and the search should commence at the dawn of the next morning.

Clear and cool was the night; no moon lighted the stars; but ten thousand bright stars looked down upon the slumbering island, when the king summoned his daughter from her couch, and bade her follow him to the mountain. The sea moaned along the gravelly beach as they turned from the shore, while the lowly breathing airs of the night made soft murmuring among the leaves of the trees that overarched the little stream whose course they followed to the foot of the *pali*. There arrived, the king seated himself on a flat rock, and uttered a shrill whistle, which was answered by a rustling in the thicket near by, as the lord of Kailua cautiously advanced through the darkness. A small string of *kukui* nuts was then lighted, and screened from distant observation, in a hollow gourd-shell. Guiding their footsteps by this feeble light, the little party commenced the laborious ascent of the precipice—Mano leading the way, and assisting the timid maiden, while the king followed, and carefully obliterated the marks of their passage. Thus they toiled on up the steep face of the cliff till the morning star arose out of the sea, when the lord of Kailua, turning suddenly aside, swayed himself by a pendant root around the point of a projecting rock, and vanished among the leaves of a creeping vine which had there spread its drooping festoons

over the cliff. He re-appeared after a moment's absence, and, lifting the astonished girl around the rock, placed her within the entrance of a little cave which had been completely hidden by the creeping evening-glory. The king scrambled in after his daughter, and commenced to peer curiously about the cavern by the dim light of the flickering torch.

The hiding place which now concealed the little party was a natural cleft in the rock, scarce wide enough to shelter nine persons. The uneven floor had been covered with green brakes, and a few calabashes stood upon a little stone shelf in one corner. Mano unrolled a large mat which had been left in the cave, and invited his companions to repose there-upon while he should prepare poi for their morning repast. The old king, wearied by his unwonted exertions, soon fell into a profound slumber; but Kawelu sat close by her father's side and watched for the coming of dawn.

The purple light of morning at length came streaming over the sea. Paalua was already at the base of the precipice, and at once commenced the search for the lady of his love. Slowly he climbed along the face of the cliff, and peered into every crevice and hole that he could spy. Many were the gloomy caverns he thus examined, of which some were filled with mouldering bones of ancient chiefs, and others were fitted as places of refuge in time of war, while others again were damp and slimy with the constant dripping of water from the rocks above.

The sun was already throwing long shadows over the plain of Kaneohe, before Paalua reached an elevation equal to that of the cave for which he sought, and no trace of his mistress had yet appeared, when, as he was leaning for a moment against the knotty trunk of a *lama* tree, his eye caught sight of a shell bracelet lying among the dead leaves at his feet. It was Kawelu's—he himself had given it as a pledge of his love. With a cry of joy he picked up the little ornament and renewed his search. Soon he found marks of recent footsteps, and followed them eagerly up the cliff till they suddenly disappeared at the base of the sheer ascent whose summit is capped with ever drifting clouds.

And now could Kawelu plainly see the perplexity of her

lover. He looked up the bare, smooth side of the overhanging bluff—there was no chance for concealment above. He had thoroughly explored the portion below—his mistress could not now be far away. Paalua called aloud, and prayed her to give him some sign; but no answer came, save the wild scream of the oo-bird ringing among the trees far down the cliff side. He listened long in vain, then clambered among the stunted shrubs and creeping stems, if perchance he might discover the place where lay his love. Once he passed so near the unseen cave that Kawelu could hear his deep breathing as he lifted himself over the projections of the rock. Mano started to his feet; and, grasping a long spear, fiercely muttered a vow to drive it through the stranger's heart, should he but lift one leaf of the vine that covered them from view. The maiden heard that terrible whisper, and would have cried out with fright, had not her father hastily restrained her from thus revealing the secret he was so anxious to conceal. But fortunately, the young prince passed on, and soon began with heavy heart to retrace his steps towards the plain. Then rose the spirits of the king, and he bantered his daughter about her lover so skilled in the discovery of hidden treasure. "No son of mine," said he, "shall this pleasant youth become; but I will give you another lover who shall console your young heart. Our faithful guide, the lord of Kailua, shall wed you this night; and back to Kauai will we send our guest, well laden with good things from the *pali* of Koolau."

Kawelu was a prudent girl, and she knew only too well that opposition could avail her naught in her present situation; so she wisely said nothing, and with an air of the utmost indifference sat quietly on one corner of the mat, where she could catch an occasional glimpse of her lover's receding form. Her mind was, however, busy with a scheme for her deliverance; and finally she thus addressed her father: "You are weary and thirsty; let me now prepare a draught of *awa* which shall refresh the bodies of you twain, before we descend to the shore, for night is approaching." The king, who was much given to such pleasures, willingly assented to this proposal, and a calabash was soon filled by his daughter with the intoxicating liquor. Mirthfully then drank the old man, nor would he suffer

Mano to abstain from the draught, and they were both speedily overcome by the powerful influences of the narcotic root. When its full effects were manifest, and she saw her two companions prostrated in the drunken sleep that follows such potations, Kawelu pushed aside the overhanging vine, and waved her mantle as a signal to Paalua, who was now standing at the foot of the *pali*, and once more scanning its rugged wall. He saw her not, but turned his face seaward, for the sun was setting. Ah! what grief then filled the soul of the young girl; but still she held out the fluttering signal, and waved it on the spear which had so nearly drank the life-blood of her lover. He stopped, and again gazed wistfully over the face of the cliff. He saw the white kapa moving among the green leaves of the evening-glory; he knew that scarf, for it was her's. Up the steep ascent then hastened the young chief, and short was the time before he reached the hidden cave. Kawelu was there; her father slumbered beside the torpid form of a warrior whom Paalua knew not. "I go with you, my love," whispered the maiden, and, while they descended to the plain, she told him of her father's designs, and of the fierce rival to whom she had been promised in marriage. The faithful lovers then hurried to the shore, and, as the lingering twilight faded over the mountains, they embarked in Paalua's own canoe, and sailed away over the foaming sea to the distant island of Kauai. There dwelt Kawelu with Paalua, and, when death bore their spirits to the lands ruled by Milu and Akea, their bodies were changed into birds—bright, beautiful birds—which still hover round the streams and waterfalls where of old they had been wont to linger in life and love.

SINCE our Customs Review form went to press with its comparative table of importations we should be producing, a disposition has been manifested in a center of influence to take steps to remedy this evil by engaging an agent to devote his time in working up a market in Honolulu for locally raised produce; advise island farmers on the requirements of the market, and save to the country that which goes yearly abroad.

THE PRINTING PRESS OF THE MISSION UNDER MR. LOOMIS.

W. D. WESTERVELT.

IT is difficult to reduce the words of the tongue into the words of the eye. This has been done at least thrice by men of the Hawaiian Islands. Rev. Hiram Bingham, D. D., and his missionary associates reduced the spoken to the written Hawaiian language and within the short space of thirty years gave to the people pamphlets, school books, geographies, algebras, histories, newspapers and Bibles, as a foundation for one of the most literary corners of the earth when the number and quality of its publications are compared to the number and quality of its inhabitants.

Rev. Hiram Bingham, D. D., a son of the first Hiram Bingham, reduced the Gilbertese to writing and gave to the Gilbert Islands Bibles and school books. Rev. Philip De Laporte is now doing the same for Nauru or Pleasant Island. One has a little touch of shame when he realizes that humanity from the civilized nations lived in the Hawaiian Islands for forty years, and knew the Gilbert Islands for nearly a century, and Nauru for almost as long, without making any earnest effort toward educating the natives before the missionaries came. This fact ought to be emphasized. It is only the energizing spirit of missions that has made any one desire to give intellectual as well as spiritual life to any nation. This was as absolutely true of Hawaii as it was of ancient England.

Vancouver visited Kamehameha I. and talked about missionaries and better days. Others "thought" about the ignorance and thoughtlessness of native life, but from 1780 to 1820 nothing was done. "On the 30th day of March, 1820, the lofty mountains of Hawaii met the delighted eyes of the mission family." "On the 12th of April Mr. Thurston and Dr. Holman took up their residence at Kirooah (Kailua), Hawaii." "On the 19th

the remainder of the mission family, consisting of Messrs. Bingham, Chamberlain, Whitney, Ruggles and Loomis, with their wives, took up their residence at Hanaroorah (Honolulu)." In a short time the way opened for Messrs. Whitney and Ruggles to settle in the Island of Kauai. "Thus in less than four months they had fixed three stations and occupied them with the warm approbation of chiefs and people."

Some young Hawaiians christianized in America acted as interpreters for the mission, but the missionaries used the opportunity for almost intimate acquaintance with the chiefs and began to help them learn the English words which they had long coveted, but which no one would teach them.

In return every facility for learning Hawaiian was afforded the teachers. It is a remarkable fact that in twenty months the missionaries had not only heard words intelligently but had applied consonants and vowels to the sounds so accurately that nearly one hundred years later the words are "standard."

They had also committed to writing in excellent order, words and sentences for a primary lesson book of 16 pages, which they called "The Alphabet." This had been done chiefly by Mr. Bingham, consulting with other missionaries. Mr. Elisha Loomis, a printer by trade, was one of the first mission family. He was in charge of "The Mission Press" until he left the islands in 1827, worn out with disease which brought death in a few years after his return to America. When the primer or spelling book had been put in shape for printing Mr. Loomis determined to make the first printing, a noteworthy affair. Press and type were thoroughly overhauled, the room put in order and a little group of chiefs and friends from the Mission gathered together on January 7, 1822. This was near the present Kawaiahao Church in one of the houses belonging to the mission, where the printing press, which they had brought with them from Boston, had been set up. Keaumoku, a high chief, was aided in setting a few type and then was given the lever of the press to strike off the first printed impression made in the Hawaiian Islands or along the North Pacific Coast west of the Rocky Mountains.

Mr. Loomis continued setting type and soon was printing sheets of lessons of eight pages each. A number of these were put in

use at once, while the remaining eight pages were being set up. Of this first printing in the Hawaiian Islands only one copy is now known out of an edition of 500 copies. In September, 1822, 2000 copies of 16 pages were printed with a few minor changes from the first printing. On the first page the word "Owhy" was changed into Hawaii. In some lessons wider spaces were used between syllables and words. There are two varieties of this second printing, "*he-li*" was changed in some copies into "*he-lii*," meaning "a chief." Evidently a space was dropped out and an "i" crowded in, probably at the suggestion of some chief. All three of these varieties of the first spelling book are in the archives of the Hawaiian Board of Missions in Honolulu, and are illustrated in *The First Spelling Book*.

It is interesting to note that the second item printed was intended to stimulate the king to a personal interest. Prof. Howard M. Ballou, in a paper delivered before the Hawaiian Historical Society, quoted from a journal letter to the A. B. C. F. M., Boston, as follows:

"Jan. 10. The King returned from Witiiti to Hanaroorah. Brother Loomis printed his name in large elegant capitals in two forms, 'Rihoriho' and 'Liholiho,' and showed them to him to have him settle the question whether 'r' or 'l' should be used in spelling his name, and he decidedly chose the former." The next day the high chief, Boki, visited the press, and his name was printed in like manner. Then Mr. Loomis, on January 12, struck off some tickets of approbation which were given out at close of school, "with which the children were much delighted." These things scarcely belong to an itemized report of books and pamphlets, but are of value as showing the method used in awakening the interest of the high chiefs, and their children in printing.

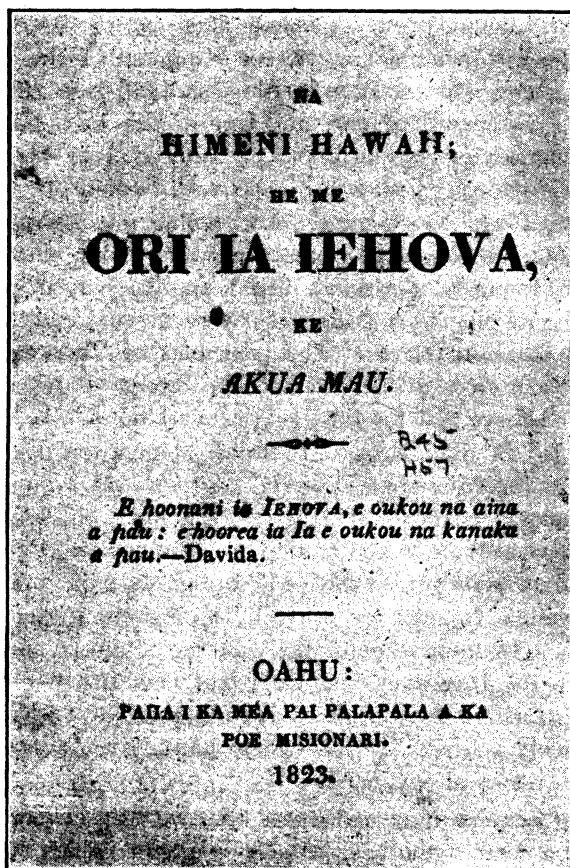
Then came an effort toward assisting the king in preserving order in the place where he came most prominently and closely into a business relation with foreigners.

Kamehameha I. had learned that his ship visiting China had to pay "Port" charges. He determined to do as other nations did and derive a revenue from ships entering his harbor. Differences of opinions arose, bickerings and quarrels followed and Kamehameha II. (Liholiho) almost immediately grasped the idea that the missionary printing press could help him meet the pro-

blem. On March 9, 1822, two months after the first printing was done, Mr. Loomis printed a small hand-bill of "Port Regulations," the first printed laws of the Kingdom of the Hawaiian Islands. Apparently no copy of this hand-bill is in existence at present. The record of date and title of this hand-bill of laws is in a manuscript account book, probably kept by Mr. Loomis.

There is no record of printing between September, 1822, and December, 1823. During these intervening months many interesting events had occurred in the experience of the mission. The foreigners living in the islands had found the current of selfishness and vice in which their lives were moving interrupted by new and powerful forces. The principles of Christianity commended themselves to the chiefs. The foreigners tried to make the chiefs believe that the missionaries were not favored by Great Britain; but in 1822 Messrs. Tyerman, Bennet and Ellis, agents of the London Missionary Society, on their way from Tahiti to the Marquesas Islands were left in Honolulu a short time. Mr. Ellis, afterward the noted author of "Polynesian Researches," consented to return to Tahiti and bring his wife and abide in the Hawaiian Islands for a while, aiding the American missionaries. His knowledge of the Tahitian tongue, which is very similar to the Hawaiian, was such that in a few weeks he was able to preach to the people in Hawaiian. The verbal changes were quickly learned. Mr. Bingham had a large number of the Hawaiian words at command.

Before the year 1823 had closed the two men coöperating had prepared a small hymn book of sixty pages, of which 2000 copies were printed in December. Mr. Ballou says: "A large proportion of the hymns were original, but among them were translations of Watt's 50th Psalm, Pope's 'The Dying Christian to his Soul,' several choruses from Handel's Messiah. This book also contained a translation of more than forty select passages of Scripture." The illustration, "The First Hymn Book," is an exact reproduction of the title page and size of the book. Literally translated the title reads thus, "The hymns Hawaiian for the praise of Jehova the God continuing" ("Davida" means Psalms). The verse from Davida calls upon the people "Praise Jehova—O you—all lands. Praise him you—all people." "Printed on the thing for paper printing by the missionary people."



Following this hymn book came a very interesting and very important hand-bill, March 29, 1824. Eleven shipmasters issued a notice calling attention to the evils of intemperance. Unfortunately no copy of this paper is to be found. Another paper published by "Spectator," two days later, March 31, 1824, under the title "Good Devised," speaks of the appeal made by the shipmasters as follows:

"The union of a respectable number of the masters of whale-ships in this port, for the suppression of intemperance, as appears from a printed document of the 29th inst., drawn up among them-

selves and subscribed with their own hands, is a fact of no small importance. The design is noble and commends itself at once to the approbation of every man who is a friend to the order and peace of society."

Another very important paper, dated Nov. 5, 1824, was issued from the missionary press. It was a proclamation to the public against the gross immorality practiced by the crews of the various ships visiting the islands. This paper was prepared at Lahaina and signed by nineteen persons, masters and officers of the "Ship Hydasper," "Ship Thames," "Ship Enterprise" and "Ship Aurora." After stating the evil results of an immoral life, "too glaring to be concealed," they determined to cut off the evil from their own ships and also call upon "our compeers in the whaling service to do the same." They said:

"We, by this article, deliberately and seriously resolve that, we will never permit any female to come on board our respective ships for the purpose of prostitution; that we will make this resolution known to our present crews and in every future shipment will propose it to all submitting themselves to our authority as an inviolable order on board the vessels committed to our charge."

This "hand-bill" was dated Lahaina, Maui, Nov. 5, 1824, but was printed Nov. 17 in Honolulu. Mr. Loomis, the printer, writes in his journal that many of the masters and officers refused to sign, alleging various reasons, but "chiefly the impossibility of keeping their crews unless they tolerated vice. The Christian, however, cannot but rejoice that an attempt to suppress vice has been made."

The only printing recorded in the early history of the mission press for a business firm seems to be that done Dec. 9, 1824. Blank bills of lading to the number of 220 were printed for D. Wilds, Esq. None of these have been found and Mr. Loomis makes this simple record of the transaction: "Dec. 9. At Capt. Wilds' request I printed for him 220 copies of blank bills of lading. He has of late made the mission a present of 2 heifers." A later note says, "The Parthian sailed, and by Capt. Wilds I sent letters."

During the year 1825, 41,000 Alphabets were printed, and also 7000 pamphlets, Tract No. 2, called "He Olelo a ke Akua," or selected Scripture verses; 11,500 copies of Tract No. 3, "He Ui,"

a Catechism; 4000 copies of Tract No. 4, the Ten Commandments and Lord's Prayer; 3000 of Tract No. 5, "Na Manao a na Alii," Thoughts of the Chiefs concerning Christianity; besides a large number of what Mr. Loomis, the mission printer, called "hand-bills." The Ten Commandments were printed in this form and widely scattered.

A new set of Port Regulations was printed Nov. 17, 1825, probably suggested by Lord Byron, who commanded the British ship *Blonde*, bringing the bodies of King Liholiho and his queen, who had died in London.

The first church built in Honolulu had been burned. The second was far too small to accommodate the congregations. Kalanimoku and Kaahumanu with the other chiefs entered heartily into the work of building a new church. "Mr. Stewart counted 2,200 people in one procession bringing on their shoulders from the mountains the materials for building." It must not be supposed that all the people labored willingly. The chiefs commanded and the people toiled. Some who refused were punished, against the wishes of the missionaries, but the chiefs felt that whatever they commanded the people must do, or authority would be overthrown. They even went so far, Mr. Loomis records in his diary, as to burn the poor little grass huts of some of the obstinate natives. Mr. Loomis says he heard some of these burned-out families talking about digging homes in hillsides and wondering how they could be burned out then. With willing and unwilling work the church was completed, and dedicated Nov. 19, 1825, the first printed complete portion of Scripture being used in the dedication. This was the 100th Psalm, a leaflet for distribution among the people.

During the years 1826 and 1827 the printed pamphlets, such as *The Ten Commandments*, *The Sermon on the Mount*, numbered over 58,000 copies; the *Hymn Books*, 30,000; the *Alphabet or Spelling Book*, 59,000, and the first part of the *Gospel of Luke*, 10,700 copies, and the first printed laws for the islands as a whole.

The *Alphabet* had long been known among the natives as the "Pi-a-pa," the name it bears to the present day. This name shows a trait of Hawaiian character. They dignify persons and things, not by their own names, but with a certain humor by the most marked peculiarity. The missionary wives were "long necks" for

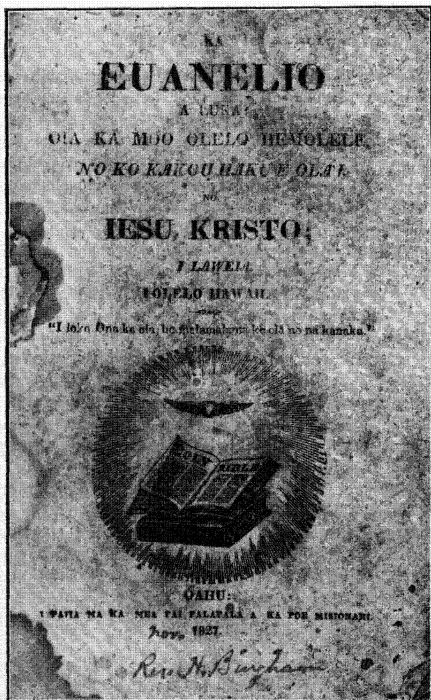
years. The natives heard the repetition of meaningless syllables in the first lesson—a lesson intended to convey to the eye the *sound* of consonants and vowels. They ran through all the consonants of the English alphabet, as follows:

Ba be bi bo bu,
Da de di do du.

The natives caught the sounds “ba-be” and the alphabet was named. The missionaries called their second and third editions “Ka Be-A-Ba.” This was softened into “Ka Pi-A-Pa,” the name given in the last and smallest edition in size. The change from the use of the entire English alphabet to the true Hawaiian alphabet of five vowels and seven consonants is well marked in the illustrations of *The First Alphabet* and the “Pi-a-pa.” The other changes by which numerals and punctuation points were introduced came in the second or revised edition in April, 1824.

In 1826 the activity of the mission was met by the high water mark of lawlessness. The United States war schooner *Dolphin*, under the command of a debased character, Lieut. Percival, led in a carnival of riot and open attacks upon the missionaries. The rioters acknowledged that they were determined to keep the natives in a condition of most open vice. They attacked the homes of the missionaries, and attempted to injure them personally, and also by threats and all kinds of falsehoods in regard to usage in other nations, tried to overawe the chiefs until at last the whole community was in a condition of bitter feeling and terror. The missionaries at last prepared a circular letter, which was printed in November, 1826, but dated October 3, “Containing,” as Mr. Loomis writes, “an exposition of the principles and operations of the Mission.” This is a remarkably moderate and wise circular in the way in which, without attacking any individuals, it stated the evils in their enormity and the work done in the way of counteracting them and uplifting the people. The letter in its entirety is well worthy of republication.

The Bible was being pushed as rapidly as possible and the first connected portion was published in December, 1827. This was twelve pages of the Gospel of Luke—the fourth chapter including a part of the thirteenth verse. The corrected proof pages of this printing is in the library of the Hawaiian Board. The title page of this printing is given in the illustration “Ka Euanelio a Luka” (The Gospel of Luke).



The translation of the Gospels had been pushed as rapidly as possible and Luke in its entirety prepared for printing in Honolulu, but Mr. Loomis, whose health had failed after many months of suffering, sailed for America January 6, 1827, carrying with him Matthew, Mark and John, which were later printed in America. A finely bound volume with these three gospels only was bound in the East and sent to Kapiolani, the high chiefess who defied Pele. This was used by her until her death and then deposited with the Hawaiian Board.

The *Paradise of the Pacific* for October, 1908, has the following interesting prophecy concerning the completion of the Bible:

Mr. Levi Chamberlain, the business agent of the mission, in his business diary under date April 30, 1827, records this conversation:

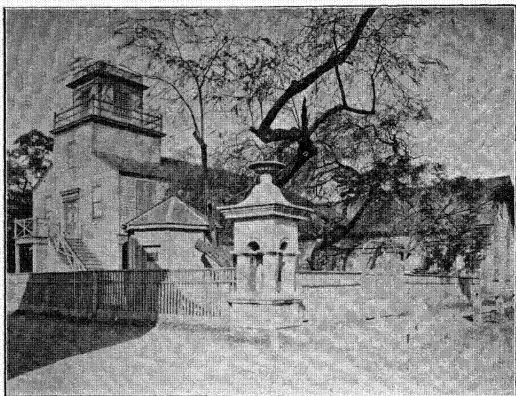
"Mr. Bingham says that it is the duty of the mission to complete a translation of the Bible in five years from this time and thinks that with circumstances as favorable as they now are it will be done.

"Mr. Whitney says he shall be *hilahila loa* (very much ashamed) if the work is not accomplished by that time.

"I say if the whole Bible is in print in the Hawaiian language in ten years from this time, it is as much as I expect and I think will be a progress exceeding that of any other mission to any heathen country having a language not previously written or reduced to order."

It was a little over twelve years before the complete Bible was in print after the first pages were printed. The finishing sheet was struck off May 10, 1839.

WITH the occupancy of the Military Reservation at Leilehua, and the prosecution of Pearl Harbor's important improvements, for which large appropriations have been made, easy and convenient means of communication is proposed by the extension of a branch line to Leilehua by the Oahu Railway Co. from its Wahiawa terminus, and the Rapid Transit Co. contemplate the extension of their system by the construction of a trolley line to the Pearl Harbor naval station, and by short spurs connect with Diamond Head and Waikiki fortifications in due time.



REUNION OF BETHELITES.

I N these times of stir and bustle, of business cares and social demands, it is refreshing to be turned aside awhile by an incident of sympathetic regard for mutual interests of former days. We thus find how slight a spark awakens the spirit of fellowship and indicates that amid the present day activities and splendor there is a longing for the humble ties once enjoyed; more of the real and less of the superficial. Human nature is much the same the world over, and not a few residents of Honolulu, with its growth and prosperity of the past decade, realize that "the former days," in a certain social sense, "were better than these."

This showed itself in a marked manner this past summer when a modest notice in one or more of the daily papers stated: "If

former members of the old Bethel church or congregation, now resident in Honolulu, will send their names to..... (a party named) they will confer a favor. A prompt response will be appreciated." It naturally caused enquiry and set interested parties adjusting their thinking caps.

Now the "old Bethel" (the pioneer foreign church), was burned down in the "Chinatown fire" of 1886, and after several months worshipping in the Lyceum, upon the resignation of their then pastor, Rev. E. C. Oggle, the majority of its members voted to accept the proposition to unite with the then Fort Street church, thus forming the Central Union.

The notice had the effect of drawing together in the course of a week's time a goodly number of attendants of the old church and Sabbath school—and their descendants, the object being, as developed later, a day's excursion by special train to Wahiawa and Waialua, tendered by Mr. and Mrs. B. F. Dillingham, for a reunion of all their fellow Bethelites to renew old friendships, not a few of whom had not met together since the old church ties were severed. And when the outing included a rest and lunch at famous Haleiwa, the "favor" was on the invited rather than the promoters. A few from infirmities of age, and some from business or other engagements, were unable to join in the fellowship, yet 127 sat down to the bountiful feast of good things.

The host was master of ceremonies, and with Mr. F. W. Damon as an able ally, the occasion was made redolent with reminiscence, not only for what the church stood for to the seamen visiting the port, and the community, but graceful tribute to the memory of its pastor for many years, Rev. S. C. Damon, known far and wide as "the seamen's friend," was made by the several speakers. Beside those already named was Chief Justice Hartwell, Rev. O. H. Gulick, Mr. L. C. Ables, and a note read from Dr. S. E. Bishop who was unable to attend. Rev. Mr. Gulick was the one person present, able, from his recollection of the first pastor and seaman's chaplain, the Rev. John Diell, to furnish in his remarks an unbroken historic sketch of half a century of the church's existence, during which time the Second Congregational, the Episcopal, and the First Chinese churches had branched out from it. Being called upon, Mrs. Dillingham gave her experiences with its Sabbath school, and as a fitting

ending of a day's pleasure that had been long contemplated, she gathered her co-members of the choir present and led them in that touching ballad "Auld Lang Syne," in which all others joined.

The return trip brought everyone home toward sunset of a perfect June day, a tired but happy party, without mishap of any character to mar its enjoyment. Faces beamed with the satisfaction of the day's reunion; all felt the inspiration of the occasion, and hosts and guests alike expressed themselves grateful therefor.

HONOLULU AND ITS SUBURBS IN THE LATTER FORTIES.

Recorded Impressions of Early Honolulu, as Recovered From Papers Sent Home at the Time.

BY GORHAM D. GILMAN.

AT the northern extremity of the plains and in the rear of the city stands old Punchbowl hill. How it acquired this name I have never heard, unless that it might have risen from its shape, which on the top is not unlike that of a large bowl with a piece broken out of one side. It was evidently once the seat of volcanic action, and contributed much to form the plains and that also where the city now stands from the black volcanic sand which is the principal composition of the ground, and is found two or three feet from the surface several feet deep. Punchbowl has long lain dormant and exhibits no signs of the mighty fires that may now be beneath, and but for the scape hole on Hawaii might break forth. At any rate, it is not in the memory of man nor tradition, when it was in an active state, and the dwellings of the natives are built around its base with every feeling of security, never even thinking of the

possibility of an eruption. That there is a communication between the great crater of Hawaii and the other islands seems very probable, for the extinct craters form a continuous chain from Kauai to Hawaii, and even now an earthquake is sometimes felt upon Oahu, while shock occurrences are not at all infrequent at Hawaii.

The view from the top of Punchbowl is very fine indeed, and the summit is accessible on horse back in the rear, where the sides are not so precipitous, nor broken as the front facing the sea, which though ascended on foot is too steep to ride up, for a false step on horseback would precipitate man and beast two or three hundred feet.

On the summit overlooking plain and city has been placed a battery of 32 pounders, which were procured in olden times and dragged up by the natives at great labor. On one part a flag-staff is erected on which the national flag is displayed on public days, while the guns send forth their booming sound over the heads of the dwellers on the plains. A year or two since a royal salute was fired from this battery on a dark evening, and with fine effect, it requiring but little stretch of imagination to suppose that Pele, the Goddess of Volcanoes, had burst forth in wrath at the disrepute that had fallen upon her ancient and formerly much dreaded powers.

From the summit the city shows to a very fine advantage, with its harbor, regular streets, public buildings and private dwellings, its rapidly increasing shrubbery, the flags of the foreign representatives, its tall cocoanut trees, the fort with its white walls, the lively appearance of the shipping all bespeak attention, while in the distance old Diamond Head with rugged sides and unequal top seems like an elder brother to the one on which we stand, while at the right is the valley of Nuuanu with its verdant green sward and its well tilled lands. The view from here on a calm clear night when the moon rides high at her full, is delightful, the distant waters reflect her rays like burnished gold. The quiet of the city which sleeps at the base; the pure air, and the holy quiet of the hour alone is enchanting.

In 1826 this hill was the place of quite a pilgrimage from the natives, citizens, etc. The story runs thus: An individual was informed through the medium of a dream that a spring of water had gushed out in the crater of the bowl, which, however, seemed

so improbable to him that it was not till after the third appearance that he ascended the hill to test the truth of his repeated dream, and lo, sure and true, there it was as described by the dream. Giving information of the singular fact that there was water in Punchbowl, no ants hill ever presented a more animated and lively appearance than its rocky sides, which was alive with the curious ascending and descending from this remarkable spring. Its wonderful waters were bottled and hawked about for sale and the excitement among the natives particularly, who are ready to run at every new sight and glad of an opportunity, was very great. The cause was probably that the rains in the mountain had struck into some subterranean channel and seeking its level had burst forth in Punchbowl. This idea is strengthened by the fact that the waters soon subsided, and with it the excitement and fear of some that it was a sign of the power that has so long lain dormant beneath.

Passing round the north base of Punchbowl the romantic little valley of Pauoa opens to view with its houses clinging to the sides of the hills, its kalo patches, and what is quite rare inland, a grove of cocoanut trees. This valley is much visited for a drive, being but two miles from town and a good road. The hospital buildings for English seamen are located in this valley and are owned by Mr. J. Booth, who has the superintendence of them. It is a well regulated establishment under good discipline. It has been named "Little Greenwich" by General Müller, which is the name now in use as applied to the valley. The buildings are of wood and neatly finished, and make a very pretty appearance from a distance, surrounded by large and noble trees. Further up this valley is Manini's garden, which is now the mere wreck of what once was a beautiful place. Its former proprietor was an associate of the old kings, and of much influence, which does not seem to have extended to his family. The garden was in a secluded well protected spot, and he cultivated all the different varieties of fruits, etc., he could obtain; the cherimoya, that most luscious of all fruits; the peach; the mango; cumquót and others, the names of which are now unknown, and the garden given over to weeds, with no care in cultivation, and which, under some enterprising person, might afford quite an income from the sale of fruits.

NUUANU VALLEY.

The principal and most important of the suburbs of the city is the valley of Nuuanu, which runs through near the center of the island and communicates with the windward or eastern side. It is the great thoroughfare for that part of the island in its intercourse with the metropolis. It is the most thickly settled of the other places containing, beside a numerous population of natives, many county seats of the merchants who retire here to reside during the heat of the summer where, though only about two miles from town, they enjoy a delicious coolness. It is rapidly increasing every year in the number of dwellings erected, and has already become the "court end" for the government offices. There is a fine carriage road leading from the water front to its further extremity. When it leaves the town it ascends a gentle slope and then passes over a level well graded road of about a mile, crossing by two stone bridges, the stream that flows from the mountains. This road has become the most fashionable drive and presents an animated scene in the evening, once wholly confined to the plains. It is to be regretted that it was not laid out wider, there not being too much room for two carriages to pass each other except at a slow pace. The surrounding country on each side of the road is level and under a high state of cultivation; the patches of kalo are numerous and in every state of progress for it ripens at all seasons of the year. The houses of the natives stand among their cultivated grounds, often amid the graceful sugar cane. From the second bridge the land rises and gradually increases in its elevation as it proceeds inland. The first building that attracts attention in going out of the valley, after leaving the bridge, is the mansion of the Minister of Finance, Castle Assumption, which is distinguished as being as devoid of architectural beauty as any residence that has been built of late. Situated adjoining the cemetery and upon a spot where there are no trees or cultivation it stands "alone in its glory" of two stories. This is the more remarkable as the lady of the mansion is considered of superior mind and ability, and possessing considerable taste and judgment. Indeed it is said that her influence upon the affairs of the nation is not inconsiderable. The place will undoubtedly improve under her superin-

tendence and may yet blossom like the rose. The adjoining premises from which this was taken by quite a diplomatic stroke are now held by the Nuuanu Cemetery Association, which was formed in 1845, and the want of which was felt to be almost a reproach upon the city, as previous to the obtaining of these grounds the place used for the interment of foreigners was an open plain and intermingled with the natives. The company was formed by the foreign residents subscribing to the stock required to purchase the land of the government, the choice of lots being disposed of at auction.

Owing to the very general health of the community under the salubrious climate there have been but few, comparatively, of their number who have been caused to make it their resting place, and the grounds have not been improved to the extent they otherwise would, though they now present a freshness and seclusion that is cheerful to those who have been called to make it the deposit of lamented friends. The walks are bordered with trees and the green grass grows luxuriantly. The seamen's lot, which was set apart and given up to the use of that class of the community is filling up the most rapidly. A plain monument with simply a foul anchor upon its sides designates the spot—an appropriate emblem—for those whose remains it marks. Beyond this cemetery is the cottage of the Messrs. J. Robinson & Co., the ship carpenters, a new building, in one of the prettiest locations in the valley. Opposite, His Excellency the Governor has recently erected a country box and laid out the grounds with considerable taste. Back of the governor's and down in a dell is the favorite bathing place which is much resorted to by all. A short distance from the governor's is "Rosebank," the residence of R. C. Wyllie, Esq., Minister of Foreign Relations. This establishment has recently been fitted up with great taste by its gentlemanly occupier and enjoys a high reputation for comfort and elegance. The Collector General has his residence adjoining, which, as well as Rosebank, is prettily situated amid thick foliage of trees at a short distance from the road. On the other side of the road His Hon. Judge Andrews is just putting up a residence in a pleasant location, commanding a fine view, and with the primitive trees about the grounds. The straw-thatched cottages of Dr. Rooke and of Mr. T. Cummins are both attractive little houses, the latter par-

ticularly, situated upon a slight eminence; the neatest built and pleasantest native built house of the valley. The view from it is very fine, commanding the harbor, the outer roadstead and the town, and is kept with much neatness. Mr. Cummins has some of the finest horses upon the islands, paying much attention to their rearing and training. Beyond Mr. Cummins, M. Dillon, the French consul, has established himself in the "Brewer cottage" for the summer, for some time the only cottage of European manufacture in the valley, and a favorite retreat, surrounded by trees and enjoying a fine situation. Mr. Pelly's, the agent of the Hudson Bay Company, is the only other prominent residence beyond and is situated in the most secluded, wild, romantic spot of the valley; a pleasant June retreat, but not so in the winter, while the others are occupied most or all the time.

A short distance above Mr. Pelly's is shown the battle ground of the valley where the old Conqueror obtained a signal victory over the island king and completely discomfited him that the islanders submitted to Kamehameha 1st. The old cannon at the fort was used in this engagement it is said with much effect.

The last building in the valley after the foreign style is His Majesty's county seat, at which he spends considerable time during the summer. It is about five miles from town and a pleasant ride. It is in a fine situation and is surrounded by many of the original forest trees. It is a plain stone building with one large room and two sleeping rooms, the whole surrounded by a wide veranda enclosed by a neat paling fence. It was here that the great meal fete was given by His Majesty to Admiral Thomas at the time of the restoration.

About three miles from this place is the "pali," a place of much resort for strangers and those who are fond of the grand in nature. The view from this place of the northeastern part of the island is very fine indeed, and the glance below of several hundred feet nearly perpendicular descent is sufficient to make one draw back in fear. Prisoners have been engaged for some time in cutting a road out of the rock so as to furnish a means of communication by horses with the northeastern side, and have done it very well, so that a person with good nerve can ride down and up, when formerly it was difficult for foot passengers alone.

MAUNALUA-WARDS.

Leaving Honolulu on the north, a fine spacious causeway extends across an arm of the harbor and affords easy communication with the northern part of the suburbs and island. The valleys of Kalihi and Kapalama are retired and pleasant spots well worth the ride to visit. The principal valley, however, is that of Maunalua, which is situated between high bluffs of volcanic stone and whose bed is completely filled with patches of kalo. It is one of the most luxuriant of all the valleys and affords a large supply of food. There is a country seat here to which is attached one of the largest cattle ranges and herds of the island, having about 1000 head. It is in this neighborhood that the famous salt lake is situated, which is much visited. It is in the bowl of what appears to have been an old crater, and as it ebbs and flows it has probably a connection underground with the sea. The water is salt, and the surface is so extensive and the rays of the sun so powerful that in good seasons thousands of barrels of salt are obtained of a clear white nature and of excellent quality. The property is owned by Kekauonohi, who employs quite a number of persons in its care.

EWA AND BEYOND.

The next district is that of Ewa, and though not properly belonging to Honolulu, yet as it is so near the city that its people are as much there as the other suburbs that it may without impropriety be included. The lower district is situated on a level of the ocean and is abundantly watered by arms of the bay that here makes in. This part is under high cultivation and is covered with kalo patches and fish ponds, the last quite an item to a people who are so fond of fish. These fish ponds are generally built where a stream of fresh water falls into the sea, and made by running a stone-wall from point to point so as to take in the space of from one to half a dozen acres, though some are seen of a hundred acres and which must have cost an immense amount of labor. In these the fish which are taken very small are put and allowed to grow, and in some instances are fed, until they become very fat and nice.

The upper lands are fit only for grazing, and a large herd of upward a thousand head are pastured. The "Big Tree," where they are partly herded, is a favorite place of resort in the summer time and is noted for the good cheer of those invited by its proprietor to enjoy the "feast of good things." The Rev. Mr. Bishop is stationed here at Ewa. He is one of the oldest of the missionaries and a man much respected by all classes. He is like a patriarch among the natives and is looked up to by them as to a father. Messrs. Chamberlain and Bishop, of Oahu, are of the second reinforcement that arrived in 1822, and they have lived to see mighty changes in the people for whose good they have passed their days till their hairs are whitened by the flight of time. Then, semi-barbarians given over to every sensual passion, groveling like swine; now, standing among the nations; wholesome restraining laws; habits and manner of civilized life; a written language with some considerable literature, and the blessings of the Gospel.

From Ewa the land makes off in a westerly direction and is one barren waste with scarce a shrub or drop of water for several miles, and vegetation is parched and dead. Barber's Point is the extremity of the half circle of hills in the basin of which Honolulu is situated, and is the most distant point from it on the west side as Diamond Head is on the south.

THE LOWER COURT.

The lower Police Court, as it is called, is the one established for trying the cases of natives entirely. Its affairs are governed by several "Inferior Judges," who are selected and appointed by the governor, and are the best men that can be obtained for discretion and knowledge of the law. Like the upper Police Court they hold their sessions every day and always have some work to do, particularly in the morning, when those who have been taken during the night are brought in. The cases generally consist of quarreling and that which brings the female sex the equal or larger part of culprits. They are usually sentenced to from four to eight months' work. As to confinement it is a mere name. The men are generally brought up on similar counts, with occasional charges of theft and sometimes drunkenness,

though very seldom the latter. The whipping post occasionally receives a sufferer and the punishment though never beyond prudence is severe and dreaded. Most of the male culprits are sentenced to work on the roads and they have executed some very good work of public utility. The judges are far from being fallible and though I do not know they would receive a bribe yet they are capable of being influenced by a foreigner, particularly who can talk fluently with them and turn the law to his advantage. On the whole there are probably few places with so little advantages that will surpass the islands for the evenhandedness of the course of justice and so little cause for complaint for those who have occasion to seek redress through the courts as now constituted.

CONSTABULARY FORCE.

The constabulary force connected with the courts is composed of a deputy prefect of police and a band of about 30 constables, who are all natives, and appointed by the governor of the island. The marshal is ex-officio the prefect of the police of the city, and it has seldom been under better regulation and discipline than at the present. The prefect being active and vigilant the utmost order is maintained with but little occasion of resorting to physical force. The deputy prefect is also a foreigner, whose duty it is to have the immediate oversight of the constables and attend the police court. He makes the complaints for committal or for breach of the law, and has the care of keeping the streets orderly. Of the constables not much can be said; receiving but small pay from government and a small share of the fines imposed in cases of arrest, there is great inducement to take hush money, which is largely done, particularly if it be more than they would receive by regular course of law, who in too many cases can be easily obtained to lend their guidance and protection during the prosecution of evil designs, as the judge of the court once publicly said after good experiences, "any of them can be bought for hapaha" (25 cents). But when the hope of gain stimulates them they are active and will ferret out those who are guilty and bring them up to justice, and every morning finds some victim at the door of the court room. They are, however, very useful and do some ser-

vice, but do not seem to distinguish between night and morning when their eyes are blinded with a bribe.

THE THEATER.

There is but one public building aside from the government building and the churches, and this is a theater which has been built during the year past and is owned by stockholders, the shares being \$100 each. The first attempt at a theater of late years was started by a few individuals in a small adobe house in a part of the town unfrequented by the better class. It had, however, some merit for order and regulation, and several amateurs appeared who gave much satisfaction. The present stock company is composed of gentlemen residing in the city, and the funds raised were used in erecting a building for the performance suited to the comfort of those who attended. It is rather of a plain homely appearance outside, but is said to be comfortable within, with a good stage and other necessary machinery for the production of plays. Its arrangements are well gotten up and it is credited with quite an extensive and valuable wardrobe. There is a manager and a few actors employed, but those who are the principal performers, and appear to be the greater favorites with the public, are amateurs, who often appear and call forth good houses. The company have never received a license to act, but are allowed to hold their performances so long as they are conducted with order and do not call upon them the attention of the government. Being the only place of amusement it is quite well patronized by that portion of the community who visit such places, and nothing has thus far taken place to disturb any feelings of suspicion; it being carried on with much order and as unexceptionable as can be done.

OAHU CHARITY SCHOOL.

The last building that may be termed a public one is the school house of the above institution. It was founded some 12 or 15 years since with the object of affording instruction in the English language to the rapidly increasing class of half-cast children, the offspring of foreign fathers by native mothers, and which of

course they could not obtain in the common native schools. A meeting was called and measures taken to put the establishment upon a permanent footing. His Majesty was made acquainted with the proceedings and generously donated a piece of land for a site for the school house and also contributed to the fund, sending a young chiefess of rank to receive instruction in English. Mr. and Mrs. Johnstone were invited to become the teachers of the school and to sever their relations with the American Board, which they did with the advice and consent of their fellow-associates, and continued to hold that responsible situation for many years, and had the pleasure of seeing some of their scholars quite well fitted to adorn their station in society.

This school has always interested the public in some measure and has been supported by voluntary subscriptions by the community and visitors, and continues in favorable operation. It is now under the charge of Mr. M. E. Hatch, who seems to be well qualified for the situation and to enjoy the confidence and affection of his pupils. The examinations are interesting and well attended and the school has much good influence upon a class not otherwise reached.

A CHAPTER OF FIRSTLINGS:

Of Things Past and Present, arranged Chronologically under their subjects. Compiled from various sources.

INTRODUCTIONS.

- 1778—February 1st, Captain Cook introduced the first goats in these islands, leaving on the island of Niihau one ram and two ewes, and a pair of pigs of English breed. Seeds of melons, pumpkins and onions were left at the same time.
- 1792—March 4th. Vancouver introduces orange plants in Kona, Hawaii, dividing same between Keeaumoku and Kaiana, also some vines, almond and other seeds.
- 1794—January 15th. The first cattle and sheep were introduced here by Vancouver from California, and landed at Kealahou.

- 1796—January. The grape vine was introduced here by Captain Broughton, in the "Providence."
- 1803—The first horses were brought to these islands by Captain R. J. Cleveland in the "Lilia Bird," from the Coast and presented to Kamehameha. A mare and foal were landed at Kawaihae, and two horses at Lahaina.
- 1815—Turkeys were first brought here by Captain John Meek, from Coquimbo, Chili, and were taken possession of by Queen Kaahumanu.
- 1820—The Irish potato—a large red variety—is said to have been introduced by Captain Jos. Vaughn about 1820, some of which were sent to Gov. Hoapili, of Maui, where they flourished better than on the other islands.
- 1824—Mango plants were introduced here from Manila by Captain Meek, then in the "Kamehameha," which were divided between Rev. Mr. Goodrich, of Hilo, and Don Marin of Honolulu.
- 1836—The common venomous centipede is said to have been introduced here in 1836.
- 1837—The first algaroba tree was introduced this year by Father Bachelot, in the "Clementine," on his return from Santa Barbara, April 17th.
- 1839—The first Brazilian Aloe plant brought here arrived by the ship "Fama," from St. Catherines, and was taken to Kauai. The first one to bloom in Honolulu was in 1846.
- Oriental Lilacs were first brought to Hawaii in 1839.
- 1848—The Wi or Vi, introduced from Tahiti, was planted at Hanalei, Kauai, by G. Wundenburg.
- 1850—The parent royal palm at Honolulu, and the islands, is in the Hobron premises, Nuuanu avenue, from seed brought here by Dr. Judd, from Kingston, Jamaica, on his return with the princes in 1850.
- 1851—The lemon guava was introduced into these islands by J. Montgomery, from Australia.
- 1852—First Chinese coolies introduced for plantation labor, arriving by the "Thetis," Captain Cass, January 3, 1852.
- Through R. C. Janion a variety of new plants were received from China, by the "Thetis," viz.: Pomelos Wongpees,

- Langans, Mandarin Oranges, Cumquats, Camélias, Lichees, Fingered Citrons, etc.
- 1856—Reindeer were first introduced into these islands by Captain Jas. Makee, in 1856, from the Ochotsk. The Molokai herd originated in a flock of eight from Japan, in 1867, to Kamehameha V.
- Java Sparrows were introduced by Dr. Wm. Hillebrand, from India, in 1856.
- 1860—The first Elephant seen at these islands arrived December 14, 1860, as an attraction of the Dan. Rice Circus Co.
- 1861—The first Camel was brought to Honolulu by John Thos. Waterhouse in the "Yankee," from San Francisco, September 2nd, 1861; one of a lot of ten from the Amoor river the previous year.
- 1865—Pheasants were first introduced here from China in 1865, as also linnets and several other varieties of birds, forwarded by Dr. Hillebrand. In 1869, eight Japanese pheasants were received, including the golden variety.
- Ten skylarks were received by the "Brunhilde," August 16th, 1865, from England, forwarded by R. C. Janion to the Hawaiian Agricultural Society. In the latter part of 1870 a number were introduced by Hon. A. S. Cleghorn from New Zealand, which were liberated by Judge Moffitt on the high table land of Leilehua, Oahu.
- 1872—The first importation of the Cashmere goat into these islands is credited to Mr. Nebecker of Laie ranch in April, 1872, from California.
- 1883—Mongoose, 36 pairs, were introduced into these islands in 1883 from Jamaica, W. I., in care of Mr. Jos. Marsden, and distributed on Hawaii.
- 1890—Ostriches (3) were introduced June 27th, 1890, from California by Dr. G. Trousseau to test ostrich farming. These were followed by another trio a few months later from the Colonies, but after a few years' effort the project was abandoned and the birds sent to the Coast.
- Automobiles first introduced into Honolulu this year and a public service attempted a little later. The Automobile Co. began March 9, 1891, but discontinued after a short time.

- 1900—Wireless telegraphy was first introduced here in 1900, but the company did not open for business till March 2nd, 1901.
- 1902—The Gamewell Police Alarm system was installed in Honolulu April 3rd, 1902.

AGRICULTURAL.

- 1817—First record of coffee planting is by Don Paulo Marin in December, 1817, probably from seed procured from ships touching here.
- 1819—First entry of gathering oranges, September 22, 1819, by Don Marin, "from seed planted eight years before."
- 1819—Initial effort at sugar making in these islands is recorded by Don Marin under date of February 25, 1819.
- 1825—The first systematic attempt at coffee and sugar culture was made in Manoa valley by John Wilkinson in 1825, but after two or three years it was abandoned.
- 1826—Farming implements were unknown in these islands till 1825 or 6. Carts were introduced about the same time, and Jersey wagons a year later.
- 1829—Indigo seed was first brought here in 1829 by a Dr. A. P. Servier; planting same at Waikiki and Pearl Harbor, which grew luxuriantly, and from which samples of manufacture was produced. Dr. D. Frick also tried its manufacture in 1855-6, and sent samples to Europe, but his inexperience told against the enterprise.
- 1840—Cacao must have been introduced in the early '40s, as seed from Manini's trees were used in 1851 for planting at Hanalei. Further effort was made in 1856.
- 1849—The yellow sweet potato of Peru was introduced here this year by R. C. Wyllie.
- 1850—Hawaiian Agricultural Society first formed August 12th, 1850.
- 1857—The Vanilla bean was introduced into these islands by Captain Pichon and Dr. Dumas, in the "Eurydice," in October, 1857, from Tahiti.
- 1862—The first bale of Hawaiian grown cotton, produced on Molokai, came to market September, 1862. The first lot exported, 600 lbs., was shipped to Boston, April 1863.

- 1862—Hawaiian grown and manufactured tapioca, from Kauai, by H. B. Hollister, is placed on the Honolulu market in convenient sized tins.
- 1884—Smooth Cayenne pineapples were introduced by Edward Lycan, from Madeira, per "City of Paris," June 13th, 1884. From this has grown the pineapple industry of present day proportions in these islands.
- 1892—Tea planting trial attempted in Kona, Hawaii, from Ceylon seed.
- 1893—Sisal plants (*Agave sisalana*), 70,000, imported through the Bureau of Agriculture and Forestry from Florida, to test its cultivation in these islands.
- 1895—Rubber growing as an industry shapes itself, the pioneer Nahiku Rubber Co. incorporating January 24. 1895.
—The initial shipment of preserved pineapples, 486 cases of two dozen each, the product of the Hawaiian Fruit & Packing Co., exported per "S. G. Wilder" to San Francisco, dates November 13th, 1895.

MARITIME.

- 1555—Alleged discovery of the Hawaiian Islands by Juan Gaetano.
- 1778—January 18th, Captain Jas. Cook, in the "Resolution" and "Discovery" discovers the island of Oahu, and shortly afterward sights the island of Kauai, anchoring in Waimea on the 20th. He discovers the islands of Maui and Hawaii the following November.
- 1791—The keel of the first vessel built at these islands was laid February 1st at Kealakekua bay, and on its completion was engaged in a naval battle off Kohala in which Kamehameha repulsed the allied brothers, Kahekili, King of Maui and Oahu, and Kaeo, King of Kauai.
- 1794—The harbor of Honolulu was first discovered by Captain Brown of Br. ship "Butterworth," November 21st, 1794, and entered shortly afterward by its tender the "Jackall," followed by the "Prince Lee Boo" and the Am. sloop "Lady Washington."

- 1819—The "Balæna" and "Equator," of New Bedford, were the first American whaleships to visit these islands, arriving at Kealakekua bay, September 17, 1819, off which port they caught a large sperm whale that yielded 102 bbls. of oil. They sailed thence to Lahaina for water, and touched off Honolulu to leave letters, October 10th.
- 1820—The first whaleship to enter the port of Honolulu was the ship "Maro," of Nantucket, Captain Joseph Allen.
- 1846—The first steamer to enter Honolulu harbor was H. B. M. stmr. "Cormorant," May 22nd, 1846, "attracting great attention and creating no little excitement among the native population."
- 1849—The U. S. S. "Massachusetts," from Boston, en route to Oregon, was the first propeller to enter the port of Honolulu, April 9th, 1849.
- 1853—The steam coasting service of these islands was inaugurated by the "S. B. Wheeler," which arrived here Nov. 14th from San Francisco, changing the name to "Akamai." An earlier attempt was made by the "Constitution," but on making one trip to Lahaina and back, February, 1852, she returned to the Coast.
- 1866—Effort to establish the pioneer steam line between San Francisco and Honolulu in the arrival of S. S. "Ajax," January 27th, 1866, after a 14 days passage.
- 1870—Arrival of the "Wonga Wonga," pioneer of the Australian-California line of steamers, connecting at Honolulu with the "Idaho" for San Francisco.

NOTABLE EVENTS.

- 1795—The first recorded Christian burial service in Honolulu was that of Captain Kendrick of the "Lady Washington," accidentally killed by a gun wad December 13th, 1795.
- 1814—First celebration of American Independence observed in Honolulu and these islands by the Winship brothers and others.
- 1817—The Hawaiian colors was first shown in foreign lands, in China, by Captain Alexander Adams, its designer, in the brig "Kaahumanu." The next year the flag was also in-

- troduced by Adams on the Mexican coast. It was 1848 before the Hawaiian flag was seen in European waters, by the bark "Don Quixote," at Bordeaux, France.
- 1820—The first company of American missionaries arrived at these islands in the brig "Thaddeus," from Boston, landing at Kailua, Hawaii, April 4, 1820.
- 1821—The first frame dwelling-house in Honolulu—sent out from Boston for the Mission—was erected by Rev. H. Bingham, on King street, just beyond the present Kawaiahao church. The building is still standing, having been recently put in thorough repair as a memorial house in perpetuity of the Mission Children's Society.
- The first church in the islands, a thatched building, was built in Honolulu; Rev. Asa Thurston preaching the dedication sermon September 15th, 1821.
- 1822—The first christian marriage in the islands was solemnized August 11th, 1822, between Thomas Hopu and Delia, at Honolulu, by the Rev. H. Bingham.
- The first printing in Hawaii was done January 7th, 1822, an eight-page form of a Hawaiian spelling book.
- 1823—Keopuolani, mother of Liholiho, was the first convert baptized, at Lahaina, September 16th, 1823.
- The first ship-yard to establish in Honolulu was by Jas. Robinson and Robt. Lawrence, at Pakaka, in 1823.
- 1824—The first known ascent to the summit crater of Mauna Loa was in 1824 by the Rev. Jos. Goodrich.
- 1826—Mosquitos are said to have been introduced here from Mexico, by the whaleship "Wellington" in her stay at Lahaina, in 1826.
- 1827—The first written laws of the islands were published December 8, 1827, against murder, theft, adultery, rum-selling and gambling.
- 1832—The first census of the islands was taken in 1832, giving a total population of 130,313. The next census was in 1836, which showed a total of 108,579; a decrease of 21,734 in four years.
- 1833—The Seaman's Bethel, the pioneer foreign church in Honolulu and on these islands, was erected in 1833, and dedi-

cated November 24th of that year. Rev. John Deill, chaplain.

1834—The first newspapers printed in these islands were the *Lama Hawaii*, issued at Lahainaluna, in February, 1834, and the *Kumu Hawaii* at Honolulu in October of same year. The first English newspaper was the *Sandwich Island Gazette and Journal of Commerce*, a four-page weekly 10x15 inches which issued at Honolulu July 10, 1836.

—Wheat raising experiment was first tried by a native of Kula, Maui. It was some ten years later before systematic wheat growing was engaged in by a hui, or company, of natives at Makawao.

1839—The printing of the first edition of the Hawaiian Bible, complete, was finished May 10th, 1839.

1840—The first constitution under Kamehameha was proclaimed October 8th, 1840. A Declaration of Rights—the Magna Charter of Hawaiian freedom—had been signed and promulgated June 7th, 1839.

—First issue of *The Polynesian*, weekly, Jas. Jackson Jarves, editor, appeared June 6th, 1840.

1843—Establishment of the Masonic order in Honolulu.

—The National motto of Hawaii, "Ua mau ka ea o ka aina i ka pono—the life of the land endureth in righteousness—was an utterance of Kamehameha III on Restoration day, July 31st 1843, in the thanksgiving service at Kawaiahao church.

1844—First export of Hawaiian grown silk, 197 pounds.

—The first trial before a foreign jury in these islands was in June, 1844, in the case of *Geo. Pelly vs. Richard Charleton*, claiming \$10,000 for slander.

1845—First export of Hawaiian grown coffee, 248 pounds.

—Representatives first chosen from the common people, April 2nd, 1845, under the constitution of 1840.

—The new road over the Pali was opened for public travel in 1845, when Kamehameha III, accompanied by Dr. Judd and John Young, the premier, rode down and back on June 27th, 1845. The first persons to cross it in a carriage were Dr. Judd and Rev. Eli Corwin, in 1862.

1846—The Order of Odd Fellows was first established at these

- islands in the formation of Excelsior Lodge No. 1, I. O. O. F., December 10th, 1846.
- 1847—Honolulu's first theater, The Thespian, on Mauna Kea street, opened September 11th, 1847. The Royal Hawaiian, the first specially constructed theater, corner of Hotel and Alakea streets, opened June 17th, 1848.
- 1848—First effort for a reciprocity treaty between Hawaii and the United States, through Jas. Jackson Jarves, October 26th, 1848.
- 1849—Beef first exported from the islands, 158 barrels.
- 1850—First lot of iron pipes for the government water works arrived May 9th, 1850, from Boston, with W. Brandon, C. E., to construct the first reservoir, just above the second bridge, Nuuanu avenue.
- First fire engine ("Honolulu") was initiated into service November 6th, 1850. The Honolulu Fire Department (volunteer) was organized by Act of Privy Council December 27th of same year.
 - Hawaiian Post Office first established by decree of Privy Council, December 22nd, 1850, with H. M. Whitney as postmaster. The first postage stamps, printed from type, issued October 1st, 1851.
- 1851—Centrifugal sugar drying, the invention here of D. M. Weston, was first introduced at the East Maui Plantation by A. H. Spencer.
- First whale oil and bone transshipment at port of Honolulu, according to custom house records.
- 1852—The first ice imported here, a few tons, was received from San Francisco and sold at auction at 25 cents and upward per pound. The first cargo brought here came from Sitka, per brig "Noble," October, 1854, consigned to Swan & Clifford.
- 1853—Smallpox introduced into the islands from San Francisco, February 10th, 1853, by the "Charles Mallory"
- Koloa plantation is credited with the first steam engine in the islands, which arrived by the "Matanzas" August 3, 1853, from Boston. The machinery, etc., for Weston's Iron Works and Flour Mill came by same vessel, and

was the first application of steam to mechanical purposes in Honolulu.

—Sewing Machines (2) were first brought here September 12th, 1853, by J. H. McColgan, from New York via Panama and San Francisco.

1854—Honolulu's (first) Steam Flour Mill was completed and operations commenced June 1st, 1854. Maui's wheat crop that year was about 25,000 bushels, sufficient to supply local need and allow some exports.

1855—Corner stone of Honolulu's first Sailor's Home was laid July 31st, 1855, and opened to the public September 1st, 1856.

—Honolulu Soap Factory, at Leleo, by Packer, Abbott & Feters, the first of its kind in these islands, turns out its first product August, 1855.

—Hawaiian flour first exported this year, 463 barrels.

1856—First dredger (steam) for harbor and channel work of this port, received from Boston, commenced operations.

—First suggestion through the public press for the erection of "a refuge for the people in time of sickness and need," by Dr. Rooke, which led to founding the Queen's Hospital, corner stone of which was laid July 17th, 1860.

1858—Rice first systematically cultivated at these islands, by Dr. S. P. Ford, near Honolulu.

—The first bank to establish in these islands was that of Bishop & Co., which was instituted August 17th, 1858, opening in the Kaahumanu street room of the Makee block.

1859—Inter-island postage first established July 30th, 1859, under Jos. Jackson, postmaster.

—Gas-light first introduced into Honolulu, September 2nd, 1859.

—Initial movement made toward the establishment of Episcopal Church in Honolulu, December 9th, 1859, of which St. Andrew's Cathedral, with missions elsewhere is the outcome.

1866—Honolulu's first daily newspaper, the Daily Herald, by J. J. Ayers, was published in 1866, its initial number appearing September 4th, but it lasted only during the whaling season.

- Satisfactory test made of Hawaiian brick making in this city, by J. G. Osborne in 1866. It is said that about 1816, a two-storied dwelling was erected in Lahaina of bricks made out of the red soil found on the hills back of the town. In the early sixties it was used as a store-house.
- 1869—Light-house at entrance of Honolulu harbor inaugurated August 2nd, 1869.
- 1870—The present Hawaiian band, dates back in origin to 1870, organizing by the government under the leadership of W. Northcott. Captain H. Berger arrived to conduct it in June, 1872.
- 1872—The first telegraph line (Eckart's private) began operation in Honolulu, October 17th, 1872.
- 1875—First export of Hawaiian rum, the product of the Heeia plantation, shipped to Bremen, May 15th, 1875.
- The first typewriter machine in these islands, a Remington, was introduced by Dillingham & Co. in August, 1875.
- 1876—Reciprocity treaty between the United States and Hawaii was ratified August 15th, 1876. The first cargo entering at Honolulu under said treaty was that of the Cyane, September 18th, 1876.
- Honolulu Library and Reading Room Association organized March 1st, 1876. Its building was erected in 1883, and moved into the following year.
- 1879—The first successful artesian well boring was at Honolulu, Ewa, July 1st, 1879, by Jas. Ashley, on the property of Jas. Campbell.
- The Kahului R. R., of Maui, the pioneer railroad of the islands, began service by a short line July 17, 1879, and extended to Hamakuapoko the following year.
- 1880—The Bell Telephone system was introduced in Honolulu in October, 1880, followed by the Mutual Telephone Co., which inaugurated its service January 1st, 1885.
- 1881—Corner stone of Lunalilo Home for indigent Hawaiians was laid April 8th, 1881, and opened for patients the latter part of 1882.
- 1883—Honolulu Marine Railway was inaugurated for service January 1st, 1883.

- Statue of Kamehameha 1st, in the grounds of the Judiciary building, was unveiled February 14th, 1883.
- Inter-island Postal Money Order service inaugurated May 1st, 1883. The money order service between Hawaii and the United States began January 1st, 1884, and extended to England, Portugal and Hongkong the following year.
- 1884—Hawaii's new silver coinage came into circulation January 14th, 1884.
- 1888—Electric lighting of the streets of Honolulu was inaugurated March 23rd, 1888, superceding gasoline lamps.
- Street car service of Honolulu began as the Hawaiian Tramways Co. with animal power, December 28th, 1888.
- 1889—First turf turned for the Oahu Railroad, March 8th, 1889, the first section of which opened for traffic November 18th of same year.
- First section of inter-island cable, between Molokai and Maui, laid August 12th, 1889. The section between Oahu and Molokai was laid April 2nd, 1890, but the shock of its first message put it out of commission for all time.
- 1892—The Australian ballot system was first adopted in these islands at the general election in February, 1892.
- 1895—The first typesetting machine in Honolulu, a Mergenthaler, comes to the Hawaiian Gazette Co.
- First case of Asiatic cholera, discovered in a suburb of Honolulu, August 18th, 1895; believed to have been introduced by the "Belgic."
- 1899—The first case of bubonic plague showed itself in Honolulu, December 12th, 1899, and the scourge held sway in the city for over three months. In the work of purifying the infected district occurred the "Chinatown fire," January 20th, 1900, which swept over 38 acres of the city.
- 1900—The pioneer electric railway in these islands was the Pacific Heights service of C. S. Desky, which opened this year. The Rapid Transit Company inaugurated their street system of the city August 31st, 1901, and eventually absorbed the Tramways Co.
- 1902—Landing of the first section of the Pacific cable at Waikiki, December 28th, 1902, connecting with San Francisco.

The section connecting with Midway, Guam and the Philipines was completed July 4th, 1903.

1906—Transpacific yacht races, between San Pedro, Cal., and Honolulu, first took place in 1906; three yachts entering. A second race occurred in 1908, with four contestants, in which the "Hawaii" was specially built to represent these islands. The "Lurline" took the first prize on both occasions.

KILAUEA IN SEPTEMBER, 1908.

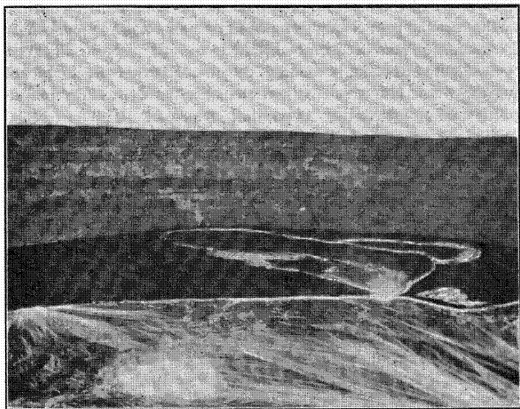
BY DR. W. T. BRIGHAM.

EVEN before a descent into the crater of Kilauea one familiar with the region notices changes, some of them decidedly improvements. The new driveway around Kilauea-iki, which when completed will afford an easy access to the Halemaumau part of the main crater, even now offers one of the finest views of Kilauea, Mauna Loa and Mauna Kea from Waldron's Ledge, and a series of imposing views down into the not fully appreciated crater of Kilauea-iki. For the botanist this road opens an interesting forest, but in this respect is surpassed by the railway through the "Fern Forest" running just back of the Volcano House. With these new roads the old road to Honuapo has been rebuilt the greater part of the distance and now only a few miles at the volcano end recall the unpleasant roughness of the old Lee road to Kapapala. Even the trail descending into the crater has been greatly ameliorated and the path over the lava paved bottom has been marked out more clearly than ever before.

More than two score visits extending over forty-four years have failed to tire the present observer of the scene. Even an interval of a few weeks has sufficed for the change of many of the salient features, and whether violently active or quiet in apparent sleep, there is always much for the vulcanologist to note.

Early in September, 1908, Halemaumau, which then was a single pit on the top or near it of the huge dome of lava which

now forms the floor of Kilauea about four hundred feet above the general floor of Kilauea in 1864, when the writer first visited and surveyed the crater, had filled with lava to within one hundred feet of the rim, or perhaps fifty feet above the lower edge of the dome. The process had been a slow one from the depth of the pit



NIGHT VIEW OF HALEMAUMAU.

left after the last emptying. For a long time there had been no fire (or molten lava) in the pit; walls of cracked and irregularly disposed rock supported a black, uneven and much cracked rim which seemed in places ready to fall, and generally projected over the abyss. When the lava returned it appeared as a small spring of tar at the bottom, which was at least six hundred feet below the average rim. So far below the spectator that it seemed of little importance or interest, but it was the sign of returning action, and soon the molten matter accumulated to form a small pool whose surface was broken at intervals by the spouting lava in the way familiar to all who have seen Kilauea in action. The spring

which supplied the vast reservoir was intermittent and the surface of the pool rose slowly and irregularly.

As is well known the walls of Kilauea are very weak, especially on the southeastern side, and when the column of lava reaches a certain height whatever obstructions are in the way yield and the molten flood seeks an outlet to the sea. This has repeatedly occurred, and the height of the pool in Halemaumau was critical at the beginning of September; the action also was very vigorous. Fountains of lava frequently spouted, and as many as fourteen were counted in a single evening, the glow from the pit illuminating the whole crater so that lanterns were hardly needed for the parties who visited the "everlasting house of Pele" by night. While the action was distributed over the whole surface of the pool, some of the fountains seemed to have a definite position which they retained for days; such was a vigorous one in the eastern half of the pool which hardly varied in place during the two weeks of our stay at the crater. Under the east bank the floor seemed lower or at least the pool showed a tendency to form a rim there and thus repeat the formation of ten or more years ago when the pool was well above the general floor of Kilauea.

On Friday, September 4th, in the early afternoon, the fountains ceased to play and soon the subsidence of the pool began. Parties coming up from the pit at dusk reported the fall at several hundred feet, but the light as seen from the Volcano House and reflected on passing clouds did not seem less than it had been when darkness came on. Mr. C. B. Thompson, Mr. C. N. Forbes and myself at once descended to the Halemaumau. All over the surface of the pool, which had fallen perhaps a hundred feet generally but much lower on the north side under the observation hut, were bright lights like signal lanterns marking danger spots, and most of these remained stationary during our visit.

In the center of the pit was a curious break running E-W, at the edge of which was a vertical slab of lava semi-circular in form, resembling half a mill-stone, and other slabs continued the wall for some distance. Over these fell a cascade of lava in a condition I had never before seen; its particles seemed to be in a state of repulsion and although white hot fell through the central hole of the "mill-stone" as meal. There seemed absolutely no cohesion, no signs of plastic molten lava. All through Kilauea

and in every flow from Mauna Loa, are many examples of the "Frozen cascades" where continuous flows of the molten rock have cooled. Not a sign of this in Halemaumau; there seemed to have come a spirit of disassociation into the pit and the white hot particles of lava seemed in haste to get as far from each other as possible.

The descending lava had left pockets of molten rock in the walls; these emptied themselves on to the sinking crust with splatters and flashes. Masses of lava had also been left adhering to the loose walls, and one of these apparently weighing twenty tons broke from its place sliding down a path marked by a trail of white hot lava so brilliant as to light up the clouds above the crater. Before it had fallen fifty feet the huge boulder broke in two, displaying its interior brilliant as an arc light and then began the utter disintegration of the mass as it thundered down, the bright particles scattering like an affrighted flock of birds.

All the while the danger signals burned here and there over the black crust. Here and there would come a break and the old movement of apparently viscid lava was seen for a moment, but it soon broke up. Less fleeting was a huge interrogation mark drawn in fire on the western side. What indeed did it all mean? and the question was by no means solved when at last the burning mark had faded.

Directly under the cliff on which the observation hut stands was the deepest hole, into which all the white-hot meal of this infernal mill was sinking down; even had it been safe to approach the edge to get a good view into this Phlegethon, the heat was prohibitory. But while the millstone in the midst still poured its grist down the slope the danger signals grew dimmer and here one went out in the darkness and no lamp-lighter was at hand to renew it; the walls seemed to have shaken down all their loose rocks; the crust was no longer breaking and the glory of the scene had ended.

We could still see light from Halemaumau when we reached the Volcano House, but how dim compared with that which had brightened the whole crater the night before! Saturday night the pit was totally dark, no signs of fire could be seen from the house. All seemed over, but the emptying of the pit had stopped, and that was an indication that soon the action would be renewed,

and no such long period of inactivity as had been the rule for many recent years was to be expected, and on the third day the lava rose again with great violence, throwing spatters above the rim of the pit.

The desirability of a permanent scientific observatory at Kilauea was strongly impressed at this visit, more strongly than ever before. Not merely a hut with a seismometer, but a scientific laboratory with a competent observer. A tower from which could be measured the diurnal rise and fall of the domed floor of the crater; where tests of temperature in the pit could be registered; where gases and ejecta could be analyzed and spectroscopic investigations be carried on. These are but some of the more evident observations needed and the physicist and vulcanologist would greatly increase the list.

THE GROWTH OF GREATNESS.

“THE Roaring Forties” is a phrase sometimes used in weather, which may be expected between latitude descriptive geography for the zone of tempestuous forty and fifty, either north or south; but in local history it may also describe the social condition of Hawaiian seaports between 1840 and 1850, during “’tween seasons,” when the whaling fleet did mostly congregate for the renovation of their fresh provisions and stores, for getting their home mails, for transshipping their catches, and for awaiting the migration of the whales.

Society, in the whaling fleet, comprised captains and first mates; and there the line was drawn. In that hazardous life a first mate might be called on, at any time, to stand in the captain’s shoes, and he must not be ignored.

Milo Calkins was a prosperous ship-chandler at Lahaina in the flush times. Besides that, he was American Consul, which means that he was a very important man. As a bill broker he supplied the coin which the fleet required; as a

merchant he received back a good deal of it into his own coffers; but as representative of the United States he prevented or settled with high authority the disputes which constantly arose between masters and men. So it became his policy, as also his naturally liberal heart led him, to cultivate good feelings towards all, but especially towards the captains. When he would give to these a knowing wink, which might be interpreted, "Come through the store into my grape arbor, about four o'clock; you will find it worth while," they were not slow in accepting the invitation. Lahaina grape arbors were both high and spacious, and the vines had an unselfish habit of being in fruit much of the time. Ice was not then invented, but the sea breeze was invited in to temper the torrid heat, and those umbrageous bowers gave the welcome to all who entered: Eat, drink and be merry.

Admiral John Hall was a full-blood Hawaiian sailor, who had risen to the command of the King's yacht, a 70-ton schooner named "Hooikaika," (which name might be liberally rendered "Get there, Eli"). When Hall trode his quarterdeck in full uniform—a broad gold band around his cap, his navy blue coat a constellation of gold buttons, and its sleeves hooped with more gold bands, white duck trousers to incase his sturdy legs, and black pumps for his feet—no one could deny that he looked every inch an admiral, and in his behavior he never lost the dignity of his position.

Caught, one day, in a fortuitous assembly in the Consul's grape arbor, this most distinguished looking visitor became the target for a volley of calls. "A toast—speech, speech—the admiral—Hall, Hall, Hall!" His English vocabulary was not large, but his thoughts were clear; and, uncowed by any false modesty, he arose, glass in hand, and, facing the host, spoke: "Mister Calkin; before, me cook—you, steward. Now, you Consul—me, Admiral."

The roar which followed showed that this speech was a bull's eye hit.

A VISITOR'S IMPRESSIONS OF HAWAII.

BY ELLA WHEELER WILCOX.

AU revoir, but not good-by to the Islands of Peace. He who comes once, returns again, and is prone to linger; as the thirsty traveler over burning deserts, is loth to leave the oasis where cooling waters flow.

You who have lived your lives in this Paradise of the Pacific can not understand what it means to the strife-weary denizens of the Mainland, accustomed to bleak and biting winters and the strain of competitive life. At first we think only of the physical delight of basking in your golden sunshine; of gazing on your opulence of tropic scenery, and we wonder if we are just dreaming a beautiful dream.

Then as day after day we take our morning meal, without seeing startling headlines, or reading detailed accounts of financial panics, awful murders and terrible scandals in "high life," and as we go forth in your streets, and hear no hard luck tales, no stories of strikes, meet no beggars, and see no sights of heart breaking misery, we begin to feel that a cloud has lifted from our brains, and that the light of heaven is shining on our minds. Again as we come to know you personally, and hear your conversation and see your harmonious mingling of race with race, we grow to believe that the much abused word "Brotherhood" is something beside an expression; that it is a religion.

And as too brief days melt into short weeks, we ask ourselves if this is not the true life which the Creator meant man to live; and if the wild struggles, the fierce competitions, the morbid excitements, and the false standards set by wealth, are not nightmares of a diseased imagination.

And we wonder why we should go back to it all, why we should ever leave you; and we are certain we shall return; return to your glorious climate, to your splendid men, to your beautiful and cultured women with hearts of gold. Aloha oe.—*Hawaiian Star*.

NOTABLE VISITORS DURING 1908.

WILL. J. COOPER.

MAWAII, during the past year, has been favored by visits from an unusually large number of men of prominence in world affairs, both national and foreign. Among the former have been various officials of Government departments who have spent considerable time in carefully studying different matters relating to the Territory, and whose investigations promise much for the future.

Among these may be mentioned Hon. James G. Garfield, Secretary of the Department of the Interior, who spent several strenuous weeks in company with Governor Frear, Land Commissioner Pratt, and other Territorial officials in traveling over the several islands and getting in touch with local conditions. As a result of Mr. Garfield's visit, Mr. F. H. Newell, Director of the U. S. Reclamation Service, was sent here to make an expert examination of the possibilities of extending the reclamation service to the arid lands of the Territory. Mr. Newell spent over a month's time during October and November, in a very careful and painstaking examination into local conditions in all parts of the group. His very favorable impression expressed will no doubt be embodied in his report to the Department, with the practical assurance that Congress will be asked to extend the law under which the immense irrigation works are being constructed to reclaim the arid West, to include Hawaii as well. The chances of such a consummation are believed to be very good.

Mr. Newell's coming has also been fraught with great good in other directions, inasmuch as in the various addresses which he made before most representative audiences, he held forth great encouragement for the development of the Islands by securing American settlers, and offered many suggestions as to how this desirable result might be attained.

The beginning of active work on the great project of creating a magnificent Naval Station at Pearl Harbor, which will involve the ultimate expenditure of many millions of dollars, and bring

a large number of permanent residents to the Territory, has also been the occasion of visits from various officers and experts of high rank in the Navy.

Among these may be mentioned Rear Admiral R. C. Hollyday, Chief of the Bureau of Yards and Docks; Rear Admiral Washington Lee Capps, Chief Constructor, and Rear Admiral Seaton Schroeder, Chairman of the Naval Board bearing his name, which investigated and recommended the character of the work of dredging the Pearl Harbor channel, and the location of the various structures of the new station.

Besides these officers of the Navy who have been directly interested in the development of the great naval base, the visits during the past summer of the Atlantic Fleet and the Pacific Fleet to Hawaii have brought here hundreds of officers and thousands of enlisted men, whose interest has been aroused over the future of the Territory, and whose influence is bound to be of much value.

Among the men of prominence who have visited the Territory during the year may be mentioned the following:

Prince Ishii, Imperial House of Japan.

Hon. James G. Garfield, Secretary Department of the Interior.

Rear Admiral R. C. Hollyday, Chief of Bureau of Yards and Docks, U. S. Navy.

Hon. F. H. Newell, Director U. S. Reclamation Service.

Wu Ting-fang, Chinese Minister to United States.

Rt. Rev. Geo. M. Lenihan, D.D., Bishop of Auckland.

Prof. Vladimir Sviatlowisky, University of St. Petersburg.

Wingshin S. Ho, Chinese Consul at New York.

Rt. Rev. H. J. R. de Silva, D.D., Bishop of Trajanopolis, Spain.

The Ven. Wm. M. Jefferis, D.D., Archdeacon of Little Rock.

Hon. Frank P. Sargent, Commissioner General of Immigration.

Capt. S. Hanafusa, Japanese Navy.

Major General Story, U. S. Army.

Capt. T. Fujii, Japanese Navy.

Commodore Buchard, French Navy.

Lt. Georges Mazare, French Navy.

Paul Nash, U. S. Consul, Vladivostock.

Dr. Koch, the eminent German medical scientist.

Capt. John A. Tucker, British Navy.

Rear Admiral Seaton Schroeder, U. S. Navy.

Rear Admiral Swinburne, U. S. Navy.

Surgeon Stokes, Commander, U. S. Navy.

Rear Admiral Sebree, U. S. Navy.

Brigadier General Edward Davis, U. S. Army.

Rear Admiral Washington Lee Capps, Chief Constructor, U. S. Navy.

Dr. Victor G. Heiser, U. S. Marine Hosp. Service.

Rear Admiral Sperry, U.S.N., Commander in Chief Atlantic Fleet.

Takashi Nakamura, Secretary to Japanese Minister of Foreign Affairs.

Hon. Francis B. Loomis, Commissioner General of U. S. to International Exposition at Tokyo.

John Callan O'Laughlin, Secretary to Commission of U. S. to the Tokyo Exposition of 1917.

Capt. C. Furuya, Japanese Navy.

Capt. A. A. Ginther, British Navy.

Hon. William Cameron Forbes, Secretary of Commerce and Police, Philippines.

Gov. Luke Edward Wright, Gov. General of Philippine Islands.

Hon. Lloyd Griscom, U. S. Minister to Tokyo.

His Ex. Tang Shao-yi, Special Ambassador to the United States, accompanied by

Prince Tsai-Fu, and suite.

REVIVING INTEREST IN COTTON GROWING.

ATTENTION was called in the *ANNUAL* for 1898 to "Cotton as a possible Hawaiian industry," wherein the writer gave the result of his experiments with plantings of the Sea Island variety, which he deemed the best in fiber and staple and most promising in yield for these islands, so as to insure safe and profitable returns. It has been said that the figures presented were overdrawn, but making allowance for optimistic views there yet appears ample margin in favor of such an enterprise. Nothing, however, came of the expressed hope of

organization for its systematic cultivation on an extended scale.

Now, ten years later, another series of experiments are in progress to demonstrate several important questions affecting its possibility as an industry in these islands, and all indications thus far seem to fully sustain the views presented in the article mentioned. The present movement has the advantage of the aid and paternal coöperation of the Hawaii Experiment Station in solving the problems of best kind of seed to plant; right soil and elevation; proper time for planting so as to avoid cut-worms; length of time for a crop; number of crops obtainable before deterioration of staple calls for a replanting, with other questions of like import.

Beside the Sea Island variety well known for its superior staple to command the higher ruling rates in the cotton market, of which both the Georgia and Florida strains, representing the best types, are being tested, a newer variety, the Caravonica cotton, from Queensland,* introduced here a year ago by Mr. E. W. Jordan with this object in view, is also under comparative experimentation in several localities, viz., at Ewa, the Experiment Station and Palolo, with very encouraging prospects, except that it is found to require seven months from seed planting before picking the first crop as against six months for the Sea Island and Chinese varieties. The Caravonica comes to us with a reputation of giving seven successive crops from the same tree before deterioration of staple becomes manifest and replanting is required. It is too early yet to say if this strong claim in its favor can be depended upon here from one planting, though the second picking to be made from plantings at the Peninsula of Ewa promises a much larger yield and of superior fiber than the first.

Dr. E. V. Wilcox, Director of the Hawaii Experiment Station, in a recent communication † on the revival of the cotton industry in Hawaii presented figures showing a possible yield of 2,500 pounds of ginned cotton per acre, which at the prevailing price of about twenty-five cents per pound would give \$625 per acre. The seed is also a valuable item for its oil and meal, and finds a ready market which would augment this sum. The basis for these fig-

* NOTE.—Since the foregoing was in type it is learned that Caravonica cotton seed was received here by Wm. M. Langton in 1905, from the originator, and was turned over to the Federal Experiment Station. This lot was planted out in July, 1906. Mr. Jordan's was an independent introduction in 1907.

† P. C. Advertiser, Sept. 20, 1908.

ures may be the exceptional yield of certain trees rather than an entire field, or acre, but even so, they show enough to make ample allowance and yet afford handsome returns per acre upon the investment that puts other agricultural industries in the shade.

The success that attended the effort of cotton growing in the early sixties by Hawaiians, through the distribution of seed and encouragement of the late H. M. Whitney, proved the "suitability of soil, climate and conditions" here for its culture. Sea Island was the kind grown, mostly in small patches in various parts of the islands, all of which was by individual rather than by coöperative systematic effort. The largest and best returns came from the island of Molokai, which had the distinction also of sending the first bale to market.

In 1865 an enterprising native on Oahu, who had ten acres growing, gathered about 5,000 pounds up to October and looked for as much more before the close of the year. This was the largest quantity of any native producer during that year. Laie is mentioned as "producing 1,200 pounds of Sea Island cotton per acre up to October of that same year, and as it was still in bearing the yield would be larger," but we do not find a later report thereon.

For the benefit of parties considering the advisability of entering upon its culture the following statements and figures were given at that time, and may have a bearing of value at the present.

"The advantage of cotton growing is, that a native, or foreigner, can raise on ten acres a crop worth \$800 to \$1,000 without any great expenditure except his own labor, for one man can easily take care of that number of acres.

"Twenty pounds of seed will plant an acre. Cotton should be planted in rows six feet apart and the plants three feet, depending on the quality of soil and size of plants. Plants should be topped at six feet.

"The yield of the short staple is from 1,500 to 2,500 seed cotton per acre. It is put up 400 pounds ginned cotton to a bale, or about 1,500 pounds of seed cotton.

"Cotton has a tap-root generally two to three feet in length and needs constant moisture and continuous sunlight. The climate best suitable is an atmosphere filled with moisture, without clouds to obscure the sunlight; and a soil that can seize, hold

and appropriate the heavy dews. Any good land with a saline atmosphere will produce fine Sea Island cotton, but without it no soil will."

The tests made in the neighborhood of Honolulu in 1896 and 1897, the result of which was made known in the *ANNUAL* for 1898—as first mentioned—appear to be fully confirmed in the recent experimental work reported upon by Dr. Wilcox.

It is encouraging to learn that as a result of the trials so far made, three tracts are to be immediately devoted to cotton growing, viz.: That of Gay & Robinson, of Kauai, who will plant this fall some twenty-five acres of their Makaweli land as a test in that section, and A. W. Van Valkenburg who has secured an option on several hundred acres of the Leilehua tract along the upper cane lands of Ewa Plantation, where an experimental field of twenty-five acre are being laid out, which, if confirming the expectation of its promoters, will soon see the whole tract planted out to the staple. The Oahu Sugar Co., at Waipahu, are also commencing with a seventy-five acre test.

Expert reports upon the quality and value of samples which have been sent to New York, London and Germany, agree as to the high grade and length of staple of the Caravonica variety, showing a superiority over the upland strains so as to command nearly double the price of the latter in the States. The report from England defers a quotation on its market value until a larger sample amount is available.

The recent passing through of a considerable shipment of cotton by way of San Francisco for Japan, shows the possibility of a nearer and growing market as another outlet for Hawaiian product in this line, though the lower grades would likely be more generally in demand with Japanese buyers.

We shall watch with interest the progress of this reviving industry, trusting to see it successfully established. It may not be generally known that the former effort had an existence of eleven years, the tables of export showing from 1863 to 1874 inclusive with annual amounts ranging from 2,315 to 22,289 pounds; 1866 being its banner year.

JOURNAL OF STEPHEN REYNOLDS.

[Being extracts from Vol. I, regarding political and commercial matters and customs of the time, as also incidents affecting early Honolulu residents of 1823-26.]

COURTESY OF DR. W. D. ALEXANDER.

NOVEMBER 27th, 1823.—At 11 the King, Boki and the retinue who attended him took their departure under discharges of cannon from the fort and vessels in the harbor, brigs Arab and Lascar, and the crying and sobbing of the people. Mr. Reeves (Rives) took his departure with the King.

February 23rd, 1824.—At 11 went to Mr. Dana's to make punch for the guests invited to dine. In the evening went to the billiard room where hot punch was prepared for those who chose to call. It had been a jovial day and so it was a jovial meeting in evening.

February 27th.—At 11 went with Mr. Brook and Mr. Hammat outside in the Eclipse. In our sail we saw Mowee and Owyhee. Owyhee seemed elevated above the water so as to be seen 15 or 20 miles further.

April 17th.—At 5 Capt. Ebbetts brought his coach ashore and put it up in Navarro's yard, which drew many kanakas who expressed many different opinions about it and about white men, whom they styled very knowing and very proud.

April 23rd.—Capt. Best presented me with a fine reversing telescope.

May 28th.—At about the hour of nine departed this life Kaumurii (Kaumualii), King of Kauai. Guns were fired from the fort and shipping, and colors hoisted half mast. There was great weeping and crying among the natives.

May 30th.—No person to preach in native tongue of mission, the natives took it upon themselves, and those who heard them said they did very well. Pualinui said Robert (a young native just arrived in a whaleship) was the best speaker she ever heard, he spoke so plain. Mr. Ellis and Mr. Bingham spoke so she could not understand more than half they said. After supper went to

see Mr. Jackson. Had just got into the house when it was found the meeting house was on fire. Mr. J. and I ran; got the boys to ringing the bell; got the large window, door, seats, window frames, the pulpit in part, when we were assisted by Mr. Hunnewell. Kanakas and all the white people running, but could not get there in season as the flames spread very fast. The roof fell in in less than fifteen minutes. Many reports among the natives, some saying it caught by leaving tapa on fire after meeting; that Pitt was knowing and accessory; some say it was because the missionaries had prayed Tamarii to death and were now praying Pitt to death.

June 2nd.—At 8 Messrs. Hammatt, Greer, Bracket, self, Captains Green and Hussey went up to the lime trees. Mrs. Hunnewell joined us there, also the ladies of Messrs. Hammatt and Greer with their attendants. Many natives have gone to get material to build a new meeting house.

June 15th.—Just at sunset a large number of small girls and boys were singing. On inquiring found it originated in one girl getting the other's sweetheart, the party singing the triumphant one. After some time the other came on and the ground was disputed. At dark they quit, each seeking new strength among its opponents to renew the engagement tomorrow.

June 16th.—Afternoon the village girls were all out again, as also a large number of spectators. At sunset they met near the waterside where they were joined by many of the crowd. At dark they all faced to the water, following each other, plunged in and bathed together, etc.

June 17th.—Afternoon we were attracted again by the exhibition of the female rivals and their parties, with additions and improvements.

June 18th.—The two parties of ladies who had been publicly contending for the last three days came out at half past five in great splendor. Great pains were taken to keep the crowd back, which gave them room to appear to advantage, being about fifteen paces apart: Two of the head one's on each side advanced alternately, while the others stood their ground, singing and making all kinds of gestures with their hands and bodies. At length some evil-minded person threw stones into the crowd and ended the sport.

June 19th.—The party went into their house and had a collation. The songs were chiefly in praise of their she captain who shone conspicuously through the whole, but by a very bold stroke gained great eclat as well as the victory to her party. After many gestures and emblems of contempt on each side, she took a Palaoa, struck it on the ground with every possible mark of contempt, then took a stone and broke it, throwing the pieces at her opponents, a thing never done before by any chief or chiefess. Many among the crowd thought it something so improper that stones began to fly from some source which dispersed the whole.

June 30th.—A man from a country ship (English), which stopped at Owyhee, came down with Capt. Ebbetts and related that they saw a large island (some say on the passage to the islands, and others it was on the passage from India to South America) of which he gave the latitude and longitude and drawing to Capt. Ebbetts.

July 16th.—Evening singing at Crocker's.

July 18th.—New church was dedicated to the natives.

July 19th.—After breakfast went with Brackett, Dersey, Heney and Brook and several ladies after apples—found them very plenty; got a large quantity. Evening went to the Mission House to take tea. Most of the residents were also present, spent the evening very agreeably.

July 20th.—Schr. Washington sailed for northwest coast to look for the new island.

July 23rd.—At 4 started for a fishing frolic, got down to the grounds at dusk. Most of the residents were out, some for fish some for fun. The ground where the fish are taken is not allowed to be fished on for several months previous; then the chiefs go with a string of nets which prevent the fish getting out and every one has the fish he can take with his hands. All the natives have a chance to fish.

July 24th.—At daylight all was bustle in getting ready to get on the grounds for fishing. But great disappointment was felt when it was found there were no fish. Many went away getting nothing; some who staid till ten or eleven o'clock got a small quantity. I should presume there was from two to four thousand people. As it was low water we were obliged to remain till late. In the meantime Captains Rogers and Heney, Oliver Wilder and

I went to see the salt pond. It is situated about a mile from the arm of the sea, between two hills, is about half a mile in diameter; there is a place in the middle unfathomable. The salt makes on the shores by the sun. It appears like ice on the shores of a pond in our country when it begins to make, and is not unlike it in appearance or substance. It is very hard; the tide affects it.

July 27th.—Heard part of Mission family were dissatisfied with having the residents there Sunday evening to sing.

January 1st, 1825.—Being New Year's a dinner was prepared by Capt. Ebbetts and Mr. Hammatt at which most of the residents partook in great pleasantness and mirth. An entertainment was also made by the females of the house for a large number of girls, at which they had more than fifty parcels carried in great style from the cook house to the eating house, girls two and two carrying each a dish; after them kanakas with each a native dish, each with a wreath and maro alike.

January 6th.—Russian Christmas. Afternoon very heavy rain. Mud walls and mud houses falling in every direction.

March 9th.—Went with Mr. Hammatt in Eclipse to Almera Osborn. Got some newspapers by which we found the Queen died in London July 8th and the King the 15th at 3 p. m. Nothing had got out among the natives although many were inquiring. Evening it was known by most of the chiefs. Pitt told them they were dead, but that they must not cry, it would avail nothing.

March 10th.—At sunset the colors were hoisted at half-mast in the fort and on board the shipping in the harbor, particularly so on board the Enterprise, which had numerous flags reaching from mast head to deck.

April 16th.—Charlton from London by way of Valparaiso said that Capt. Byron was at the latter place and would soon be here. Capt. Charlton comes out as agent for the islands in the Pacific and everything is to be under the English.

May 7th.—Saw Capt. Charlton who said the frigate Blonde brought news from Lima that war with France, Spain and Russia on the one part and Great Britain on the other was anxiously expected by those at Lima.

May 11th.—A full account of services at interment of King and Queen, which is familiar.

May 28th.—Lord Byron had a magic lantern exhibition at

Pitt's house in evening under direction of the chaplain and band to accompany it. Mr. Bingham persuaded Pitt not to have any theatrical performance as it was very wicked.

July 6th.—At 6 departed this life Mr. Oliver Holmes. He was a native of Plymouth; had lived on the islands thirty years; at one time he was Governor of Oahu and gave good satisfaction to Tamehameha. He has left five daughters, one of whom is away on the Waverly.

July 27th.—At 5 attended the funeral of Mr. Holmes. Most of the foreigners and a great many natives attended. Pitt was at the grave to see the corpse buried.

August 22nd.—Navarro met Sistare and Mr. Hayes as they were walking up from the water side and fired a pistol at S., which missed him. Sistare took hold of him, Navarro fired a second shot which went into Sistare's thigh and glanced downwards towards the knee where it lodged. More hereafter.

August 24th.—At 11, all residents were summoned to go to Mr. Pitt's and hear the cause between Navarro and Sistare; after the opinion of all were given, sentence was pronounced that Navarro and Sistare were both to leave the islands. Some told Pitt he had no occasion to interfere with white men's quarrels. "Then," said Pitt, "I shall not interfere with anything among white men. Masters of vessels and sailors may fight for all me."

August 27th.—Mr. French was at Pitt's. Mr. Bingham came and began to talk about a large bell and a large clock. Pitt got up and left, Bingham followed.

December 10th.—Mr. Bingham at Pitt's with Kaahumanu, trying to have laws of his own making put in force. Boki opposed him, told him he would not let him have anything to say about the laws. K. said she was a lone woman, of course she could do nothing.

December 11th.—Mr. B. preached hard against Pitt and Boki for not making the laws he had proposed.

December 12th.—Afternoon went to hear the debates upon the laws which Mr. B. had proposed to the chiefs, and they were divided in opinion about. Mr. B. the most impudent puppy I have seen for many a day.

December 15th.—At 4 p. m. went to the race ground where

several races were run. Evening at Grimes playing *vantoon* and *loo*, had a fine luau supper and a few songs.

February 22nd, 1826.—Capt. Percival went to old Kaahumanu and talked about the laws of the land, who first brought them forward. They told him Mr. Bingham was the prime mover. Mr. Bingham has always said he has never interfered.

February 23rd.—Two papers caricaturing Bingham and Kaahumanu.

March 26th.—Afternoon was asked by Capt. A. P. Edwards to the wooden house, to witness the charter for the brig Becket by the said Edwards and Boki. When we arrived there Capt. Percival began to object to the charter party as being informal and improper. Got in a great rage; refused to witness it and left the room. After all had followed out onto the stoop he said Mr. Schemerhorn or Mr. Bates could witness it. Mr. S. replied, "I will not witness such an instrument" (because he did not think it legal or proper), or words to that effect. Capt. P. and Capt. E. had hard words. Percival collared Edwards and said he would throw him (E.) off the stoop. People interfered and they separated. In a few moments P. collared E. a second time in which their waistcoats got torn, but no further injury. Much warm conversation ensued in which I was called on to make some statements, wherein I was led to make some observations implicating Mr. Bates of underhanded conduct. He immediately called me a damned liar and at the same time struck me on the face. I left immediately, thinking it most prudent to get off before things got worse, and better to suffer wrong than to do wrong. Much more might be said but here is too much to reflect credit on navy officers of U. S. service, etc.

March 27th.—In morning went to Boki who signed the charter party without hesitation. Boki observed, "I went yesterday to sign, not to see fighting."

May 20th.—H. M. ship Blossom, bound for Bhering's Straits in order to take Capt. Franklin from the North Pole expedition, intending to travel across the land to the Straits.

June 3rd.—Boki said Bingham was trying to get his laws on again but he was opposed to him. Said he and the king would go from Oahu to England. (Some of the other islands.)

July 22nd.—King buying cloth to make uniforms for a com-

pany of cavalry, life guards, going down to Pearl River to exercise.

August 1st.—King said Mr. Bingham told him not to wear his uniform. Mr. Charlton said Bingham's marriages were not binding on English subjects.

August 9th.—Capt. Ebbetts landed a sugar mill, the cylinders of stones.

October 10th.—At 4 p. m. the residents and masters of vessels sat down to a dinner prepared by Gen. Marini with Kaukioli (?), Boki and one or two others of the chiefs, at which Madame Boki and Kauluohi partook. The dinner was given to the king in consequence of his being sent for by Mr. Bingham.

October 27th.—Heard missionaries were sending printed letters to all the residents and masters of vessels, challenging them to prove that missionaries interfered in government and commercial affairs.

THE M'KINLEY HIGH SCHOOL.

BY C. E. KING.

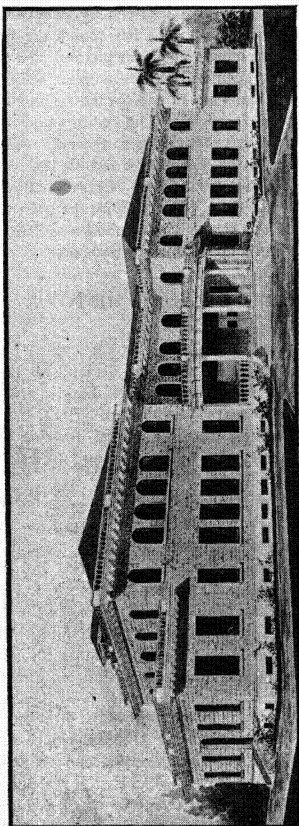
A VERY marked improvement has been attained in the architecture of buildings recently erected in Hawaii and the school-houses, constructed within the last few years, have kept pace with the movement. This is notably true of the imposing McKinley High School, a building which compares most favorably with any of its kind in the world. This structure, built of hollow concrete blocks, is two stories high and contains eight properly ventilated well-equipped class-rooms, a physical and a chemical laboratory, an up-to-date commercial department, a library and a comfortable and spacious assembly hall. In addition there is a principal's office, ladies' retiring room, each provided with all conveniences, two hat rooms for the use of students, a specimen and apparatus room for the physics laboratory, a private chemistry laboratory and a dark room connected with the chemical laboratory.

The McKinley High School is located on Victoria street, occu-

pying the grounds between Young and Beretania, and facing historical Thomas Square. The foyer entrance is very attractive and through either of two doors the visitor steps directly into the main hall. At the right is the office of the principal, furnished with a large desk made of handsome koa wood, presented to Prof. M. M. Scott by the Alumni of the school. Adjoining the office is the library provided with koa tables, chairs and koa shelves also donated. A part of the McKinley Memorial Fund has been expended for an heroic size statue of President McKinley, which will stand in front of the building; a part in purchasing books for the library and the Trustees have invested the balance of the fund in bonds, the income to be utilized in acquiring additions to the school library from time to time.

A long corridor extends lengthwise through the building and the class-rooms are located on either side. On the first floor are separate rooms for mathematics, French and German, Latin and Greek, English, History, the library, office, ladies' room and assembly hall, with rostrum and two dressing rooms at one end and a movable partition at the other, which, when rolled up, adds a seating capacity of two hundred. A double branching stairway leads from the main hall to the second story and on this floor are the chemical and physical laboratories, science and recitation rooms, and the commercial department consisting of book-keeping room with savings bank, a phonograph room, typewriting and stenography rooms. In the main basement are the toilets and lavatories and it is planned to excavate the wing basements to provide athletic rooms for the students.

The school covers an area of 22,548 square feet. Each recitation room is twenty-five by twenty-eight feet, with windows on one side and open transoms on the other and each provided with green blackboards. In the mathematics room the triumph patent desks are used, but in all the other recitation rooms the auditorium seats with arm tablets are in use. The assembly hall has the individual desk with the Boston City special seat. The chemical laboratory has a concrete floor, the windows are provided with blinds that completely darken the room when necessary, and water, gas and electricity are supplied. The specimen room is on the second floor and will be used for geological specimens and the display of attractive apparatus required in the laboratories.



NEW MCKINLEY HIGH SCHOOL, VICTORIA STREET, HONOLULU.

The stage in the assembly hall is fourteen by twenty-four feet provided with a sliding curtain. The hat rooms are furnished with shelves and hooks for hanging garments and also umbrella racks. The toilets have enameled closets without wooden tops, and rooms with shower baths are in one corner. The building is lighted throughout with electricity. The ceilings and walls are plastered and tinted with colors pleasing to the eye. A wainscot extends from the floor to the blackboard and all the woodwork throughout the building is natural finish. Large windows admit an abundance of light and these, together with the open transoms on the inside walls of the rooms assure good ventilation. The total cost of the building is approximately \$60,000.

REPRINTING DIBBLE'S HISTORY.

TIME tests the value of all things, a fact particularly noticeable with regard to books, hence, the continual demand for the Lahainaluna edition of Dibble's "History of the Sandwich Islands," of 1843 (which has been many years out of print), has set the seal of value upon it, largely from the fact of its being based on Hawaiian sources touching the ancient history, traditions, customs and habits of the race.

The book has long commanded a high figure whenever copies have found their way back to trade circles. In response therefore to this steady enquiry and increased interest in these islands, it has been deemed opportune to republish the work. For this purpose it has had corrections and revision conforming to directions of the author, recently discovered in the archives of the A. B. C. F. M., in Boston, together with a few facts relative to its printing.

The edition of but 600 copies readily accounts for its rarity, and of this number one-third was sent to Boston, and the rest retained here for disposal. Four hundred copies of an appendix for it was printed in Honolulu, during which printing several changes were made. A portion of the edition was also furnished with four copper plate engravings, executed and printed at the Lahainaluna press. These will not be included in the new edition, no copies being found sufficiently sharp and clear for reproduction process. It is being issued by The Burrows Brothers Company, Cleveland, to appear in the early part of 1909.

RETROSPECT FOR 1908.

REVIEWING the progress of events since our last issue one cannot but be impressed with the many circumstances and conditions with which Hawaii has been favored, whereby the year 1908 is admittedly one of unusual prosperity for this Territory, and occurrences have transpired which presage much for the benefit of the islands.

In the first place we have enjoyed a year of uniformly pleasant weather. Notwithstanding the less than usual average rainfall for the year, whereby certain sections of the group have suffered somewhat, the temperature on the whole has been equable, with shorter spells of southerly airs to raise the temperature to our extreme of 82° or 83°; never reaching the "hot weather" range of summer in the States. As a consequence there have been no damages to growing crops from storm or flood, nor injuries sustained among our coast-wise shipping. Neither has the health status of the community throughout the islands been impaired, nor menaced by epidemics.

These conditions have contributed toward the "unusual prosperity" of the sugar plantations, as the season just closed is shown to be their "banner year" of production, and, with the addition of better prices prevailing throughout the year, has given this main industry of the islands a double benefit. Wide strides too have taken place with the pineapple industry; rice growers also report increased crops; confidence is shown in rubber culture, and new enterprises are shaping themselves for public recognition, having developed satisfactorily from the experimental stage.

The policy of investigation and enquiry in land matters, forestry and natural resources of the Territory, and of seeking immigrants of a higher order than has hitherto claimed the attention of government and planter, is but laying lines of vast importance for wide strides in the near future, as is also the liberal provisions by Congress for various projects planned by the Federal authorities in these islands, for their improvement and defense

It is too early yet to deal with these beyond mention of the fact that the Diamond Head fortification, and Honolulu harbor and channel work is well under way; the Hilo breakwater construction has been started, and bids for Pearl harbor dredging are called for. These and other current matters more in detail are shown as follows:

THE POLITICAL CAMPAIGN.

Political agitation by the daily press of this city started as early as February toward the elections to be held in November, and the result shows doubtful wisdom in this waste of time and injury to vested interests in thus pandering to the weakness of a pack of political demagogues. For a small community as is ours there is no excuse why we should be cursed with so much politics. The fact that it was Honolulu's first municipal as well as general election for the Territory called for little of the commotion thus created in the interest, presumably, of "good government," and what began as "a campaign free of personalities" ended with libel suits to the amount of \$100,000. Onlookers at this strife for so-called party preëminence see the occasion it gives for questionable aspirants getting in the front rank. While the result has spared us some threatened miseries, it could have been materially benefitted by a few exchanges from those unwisely dealt with at the polls. Better servants tried and true than those having "axes to grind." Compared with the recent campaign on the coast it is said there was less political demonstration in the closing month of its work than could have been seen here in a week.

PUBLIC IMPROVEMENTS.

Plans and specifications for the Hilo Breakwater, for which \$400,000 was appropriated by Congress, was approved at Washington and returned here in January last. Bids were called for its construction and opened at the close of March. There were four bidders for the proposed work, the contract going eventually to D. E. Metzger of Hilo.

The breakwater begins at a point 4,000 feet N. E. of Reed's bay, extending some 7,275 feet N. W. by W., thence west about 2,425 feet. It is to have a uniform top width of 15 feet and a

uniform height of 11 feet above low water mark along its entire length. The stone called for in the work, or much of it, is to weigh at least 130 pounds and some parts 150 pounds per cubic foot, and of a size from one to eight tons each; the slopes to consist of stones roughly rectangular in shape and laid up in steps.

The first quarry blast for the special stone for the work was set off September 2nd and the actual construction work begun on the 12th according to the terms of the contract. October 27th the first large rock in the permanent work, weighing nearly eight tons, was lowered into place, the quarry work in Puna having progressed favorably so that over 25,000 tons of rock was ready for moving to place.

Kahului Breakwater. This work was practically completed early in the year so far as planned at private expense, a most important undertaking, rendering Kahului a safe anchorage for vessels of large size, and enabling them to lie handier to the wharf for expediting the handling of freight and materially reducing expense.

Contract work on the \$410,000 improvement of Honolulu harbor dredging and enlarging, by the War Department, began early in February by the Hawaiian Dredging Co. The project includes dredging the harbor seaward from present deep water northward and westward of the channel, and between the channel and quarantine wharf, to give greater facilities for largest ships entering or leaving port. The basin of the harbor is being deepened to a uniform depth of 35 feet below high tide, and is nearing completion. The material from this and the channel dredging is building up an island some seven hundred feet wide and extending from the channel northward and westward about 1,400 feet on which is erected the new front range light, with place for several government buildings. The Ewa side sea wall of the channel, and seaward of this island, is being faced with heavy rocks of ten ton weight.

Makapuu lighthouse and keeper's quarters are about nearing completion, awaiting only the arrival of the lantern for the final installation of the lens. This is described as one of the most powerful and of great size, being 12 feet $3\frac{7}{8}$ inches high by 8 feet $8\frac{3}{4}$ inches inside diameter, weighing, as shipped with its pedestal,

about 14 tons. The light will be visible from a ship's mast head 50 miles, or from the deck under ordinary conditions 30 miles.

The Territorial work of wharf dredging has deepened the slips of the Brewer, Nuuanu and Sorenson wharves to the depth of 24 feet.

Queen street, from Fort to Nuuanu, has recently been paved with wood blocks on a bed of concrete some six inches thick, and the whole covered with bitumen. It is hoped this will prove more durable for the heavy traffic of the water front than has been experienced heretofore.

The Inter-Island Steam Navigation Co. is erecting a coal handling system on their property at the Bishop wharf and adjoining premises, whereby the unloading or loading of vessels will be greatly facilitated, and at much saving of time, expense, and coal also.

DIVERSIFIED INDUSTRIES.

The Kona district of Hawaii is pushing forward in the line of new industries. The first systematic tobacco plantation is established there, being an incorporated company of \$50,000 capital under the direction and management of Jared G. Smith, so long director of the Hawaii Experiment Station, and who demonstrated by experimentation its feasibility in these islands. The plantation is at Keokea, five miles south of Kealahou bay, and comprises 216 acres of leased land of the Bishop Estate. Its first crop is now being prepared for market.

Another enterprise of like character is that of the Hawaiian Tobacco Plantation, of which Chas. R. Blacow is the moving spirit, securing a lease of some 300 acres also of Bishop Estate land at Keauhou, Kona. This company organizes with a capital of \$100,000 in shares of \$20.00 each, with right to increase its capital to \$1,500,000.

The pineapple area is being extended by new plantings, which will call shortly for the establishment of another cannery in the district.

Experimental work with upland rice, in Kona, is also giving satisfactory results as to prolific growth, fine quality, and profitable returns. This has been from seed supplied by the Federal

Experiment Station, and under direction of its expert in this line, Mr. Krauss.

The Pacific Development Co. with a large leased area of Bishop Estate lands in Puna, Hawaii, has been quietly prosecuting diversified culture, having cleared some 200 acres of forest land and planting 44,700 rubber trees of the *ceara* and *hevea* varieties on 160 acres, 50,000 pineapples have also been planted out this past summer, and on the shore section of the tract ten acres of cocoanuts have been set out, which will be materially extended in the near future.

The Hawaiian Copra Co., mentioned in last *ANNUAL*, planted out 10,000 cocoanuts at their Kailua tract, Oahu, the past season, of which 9,000 is coming along in fine shape. Further plantings are being made at the rate of 1,000 a month, to permit proper care thereof at their first stage.

In addition to the lime making enterprise established last year and which is meeting with much success, it is now proposed to undertake the manufacture of cement, expert report on samples of its products showing very favorable tests. A prospectus is issued contemplating a million dollar corporation.

The McWayne Sisal Plantation at Kailua, Kona, Hawaii, is developing steadily, having about 1,000 acres of growing sisal in fine condition; harvesting its first crop this year and shipping same to the San Francisco market.

The Hawaiian Fiber Co. increases its capital stock to \$150,000, over 500 acres of new planting having been set out on their recently acquired Hoaeae land, and work being pushed to cover the entire tract of some 1,800 acres.

RUBBER EXPERIMENTATION.

Respecting rubber growing which is reported to be making satisfactory progress in the several sections devoted to its culture, it is nearing the age in some places for testing its yield.

From investigations recently made by Dr. Wilcox of the Federal Experiment Station, and R. S. Hosmer of the Territorial Bureau of Forestry, it has been decided to carry on jointly a course of experimental work to determine the best methods of tapping the trees from a commercial standpoint, as also the cost

of such tapping and of coagulating the sap and extracting the pure gum rubber contents.

This service in behalf of the industry is being carried on by Mr. Q. Q. Bradford, of the Federal station, on the Nahiku plantations, the companies furnishing the laborers for the work while the investigations will be aided financially by the Forestry Bureau. Experiments are also being made in the effect of cultivation and fertilization on the growth of the trees and the yield of latex, as it is thought likely that these points have more to do with the success of the industry than have been supposed.

The outcome of these experiments, which are of much importance to the infant industry, will be looked for with interest by more than those who have invested therein.

The annual meeting of the Rubber Growers' Association, recently held in this city, was very largely attended by representative men from various parts of the islands, at which valuable reports and papers were presented relative to the industry here, as also its development in Mexico, which has attracted not a little capital from these islands. At this meeting it was shown that 1200 acres of rubber trees were making good progress throughout the group.

NEW INTRODUCTIONS.

Over one thousand plants, from seed brought from Mexico by Mr. Geo. R. Ewart, of the famous "mocha" coffee was raised at the experimental grounds of the Board of Agriculture and Forestry, and have been distributed to various parts of the islands giving the promise of best results.

Through Mr. S. M. Damon special effort to procure the choicest varieties known of India and Manila mangoes was made this past summer, with the result of obtaining 100 plants from selected and propagated seeds by Mr. Donald McIntyre, who was sent for this special purpose to the Philippines. These plants arrived July 31st, the three main varieties being the Caribao, Pico, and Pahunan.

PINEAPPLE GROWERS ORGANIZE.

In May last the Hawaiian Pineapple Growers' Association or-

ganized for the development of this industry of the islands "to secure greater economy and improvement in the methods of cultivating, packing, transportation and marketing of pineapples and the products thereof."

All the principal pineapple and cannery companies were represented, and realized the need of such an organization for mutual protection and concerted action in the interests of the new industry. Its first board of officers then elected comprise: J. D. Dole, president; W. H. Baird, vice-president; T. H. Petrie, secretary and treasurer, and D. B. Murdock, auditor.

An important step to be taken in the interest of the industry is the scheme of educating the principal sections of the States by advertising by booklets, and by samples showing the superiority of our product and thus create markets therefor. Fifty thousand dollars is said to be assigned for this campaign under the management of James D. Dole; the present plans being for one year.

PLANTATION CHANGES.

Kihei Plantation Co. has been disposed of to parties in the interest of Hawaiian Commercial & Sugar Co. and has been discontinued.

M. S. Grinbaum & Co. retiring from business the Kaeleku Plantation agency has been transferred to Davies & Co.

Ookala Sugar Co., which had been announced as planning to terminate, are considering the advisability of continuing, on the strength of improved conditions this past year. All outstanding bonds of the company have been recently paid off.

Kipahulu Sugar Co.'s stock has been all bought up by H. Hackfeld & Co. at \$10 per share, rather than foreclose on the property for the mortgage they held thereon.

The Kona Company have contracted for a new nine-roller mill and engine to enable them to take care of their increasing crops which have outgrown their mill facilities.

Ewa plantation contemplates the conversion of its two nine-roller mills into one of fifteen, the first of its kind. Times have changed since the suggestion of altering the three-roller mill, once in vogue here, to five was laughed at.

The Hawaiian Commercial & Sugar Co. establishes a new record crop this year, finishing their season by the middle of

July with an output of 56,150 tons, exceeding their record crop of last season by 7,981 tons. This is the largest crop ever milled from one plantation in these islands and is said to be probably the largest in the world.

LABOR MATTERS.

Arrangements have been completed by the Board of Immigration for the establishment of a recruiting office in the Whitehall building, New York, for labor from those eligible to become citizens. It will be under the charge of J. D. Trenor, who spent several months here in a thorough study of our labor conditions. Its expense will be borne by the planters; the object being to secure such labor as may be required from time to time.

At the annual meeting of the Planters' Association the labor conditions on the whole were reported to be satisfactory, with fewer disturbances than usual to record. Since the Vancouver commotion of 1907 Hawaii has been visited by several bands of Hindoo laborers, but so far they appear to be of a restless disposition.

A new policy is announced by the Emigration Bureau of Japan, whereby the emigration of Japanese laborers to Hawaii, the United States, Canada, and Central and South America will be prohibited, nor will Japanese residents from Hawaii temporarily residing in Japan be allowed to return here. Since this announcement the Japanese plantation laborers, or certain papers claiming to represent them, are agitating for an increase of wages.

OUR NAVAL VISITORS.

The Atlantic Fleet, for whose visit much preparation was made for a fitting welcome, arrived from San Francisco July 16th, and comprised the following vessels of the first, second, third and fourth divisions; those of the third division arriving a few days later by way of Lahaina:

Connecticut, flagship of Rear Admiral Sperry, Captain H. Osterhaus, commanding.

Kansas, Captain C. E. Vreeland, commanding.

Minnesota, Captain John Hubbard, commanding.

Vermont, Captain Wm. P. Potter, commanding.

Georgia, flagship of Rear Admiral Wainwright, Captain E. F. Quarltrough, commanding.

Nebraska, Captain R. F. Nicholson, commanding.

New Jersey, Captain W. H. H. Southerland, commanding.

Rhode Island, Captain Jos. R. Murdock, commanding.

Wisconsin, flagship of Rear Admiral Schroeder, Captain Henry Morell, commanding.

Illinois, Captain John M. Bowyer, commanding.

Kearsarge, Captain Hamilton Hutchins, commanding.

Kentucky, Captain W. C. Cowles, commanding.

Louisiana, flagship of Rear Admiral Emory, Captain K. Niles, commanding.

Virginia, Captain Alex. Sharp, commanding.

Wisconsin, Captain R. M. Doyle, commanding.

Ohio, Captain T. B. Howard, commanding.

The day of their arrival was wholly given up to welcoming the guests; all places of business being closed. During their brief stay various entertainments were held in their honor, buildings and streets decorated with flags, and at night brilliantly illuminated with electric lights. On the eve of their departure the fleet gave an effective searchlight display and at 6 p. m. of July 22nd they sailed away for the southern seas.

The Pacific Fleet followed in their arrival a little later, reaching here September 2nd and comprising the following vessels:

West Virginia, flagship of Rear Admiral Wm. A. Swinburne, Captain Alex. McCrackin, commanding.

Maryland, Captain Moses L. Wood, commanding.

Pennsylvania, Captain Frank A. Wilner, commanding.

Tennessee, flagship of Rear Admiral Uriel Sebree, Captain Bradley A. Fiske, commanding.

California, Captain V. L. Cottman, commanding.

South Dakota, Captain Chas. E. Fox, commanding.

Washington, Captain A. M. Knight, commanding.

Supply ship Solace, Wm. A. Gill commanding, with the torpedo fleet Hopkins, Hull, Truxtun, Whipple, Perry, Preble and Stewart.

The fleet left port September 10th for Samoa, returning here October 13th; recoaled, and making a short stay then departed for Magdalena bay on the 22nd en route to South America.

STEAMER MAUNA KEA.

This new vessel for the Hilo route, built in San Francisco by the Union Iron Works to the order of the Inter-Island Steam Navigation Co., arrived here March 12th, 1908, and is the largest and fastest vessel in the coasting service, having a guaranteed speed of 15 knots, and making over 16 in her trial trip. She is 240 feet long and 36 feet beam, with double bottoms, triple expansion engines, and 2400 horsepower. She has spacious accommodations for 153 first class and 60 second class passengers. Of the former 126 can be provided in upper deck rooms. The fine dining saloon is amidships with a seating capacity of 88, and her social hall is spacious and handsomely fitted. She is registered at 1566 tons.

EARTHQUAKE SHOCKS.

The island of Hawaii experienced one of the heaviest earthquake shocks at 8:15 p. m. of September 20th, 1908. that has occurred in many years. It was most severe in Hilo and in Puna, but beyond the breakage of crockery and glassware no serious damage resulted at Hilo, while in Puna several houses were moved from their foundations and new and enlarged fissures occurred. A slight tidal wave was also reported. A slight tremor was felt in Honolulu about the same time.

OUR ISLAND YACHT HAWAII.

Last ANNUAL mentioned that a yacht to represent these islands in the Transpacific race of 1908 was in progress of construction from designs of C. C. Crowningshield. Naturally much public interest centered in the vessel, built for the purpose by popular subscription to shares of stock therein, and by contribution of furnishings for its outfitting, etc.

The little craft was duly launched from the ship yard of Sorenson & Lyle, its builders, April 4th, amid a large gathering of enthusiastic spectators, and christened "Hawaii" by Miss Mary K. Wilcox, of Kauai.

The dimensions of the yacht are: Length over all, 69 feet 6 inches; length on water line, 52 feet 4 inches; width of beam,

16 feet 10 inches; depth of hold at mainmast, 9 feet; extreme draft, 10 feet. The vessel is schooner rigged and is built as far as possible of Hawaiian material, the selections of Koa for her cabin and other finishing being specially rich. She is valued at \$25,000 and is fully insured. She left Honolulu June 2nd for San Pedro to take her place in the race from that port, making the passage over in 19 days.

THE TRANSPACIFIC RACE.

This event of the year, which came near falling through owing to lack of interest on the coast, finally shaped itself with four yachts entered for the contest, viz: the Lurline, winner of the former race; Lady Maud, Gwendolyn II. and Hawaii. All the boats set out at prompt noon from San Pedro, July 4th with time allowance as follows:* Lurline, scratch; Gwendolyn II., 17h. 30m. 56s.; Lady Maud, 8h. 9m. 39s.; Hawaii, 8h. 37m. 30s. The Lurline proved again the winner, arriving July 19th in 13d. 21h. 31m. 43s., official time. Others were Gwendolyn, 14d. 4h. 7m. 9s.; Lady Maud, 14d. 15h. 38m. 7s.; Hawaii, 14d. 18h. 46m.

A welcome luau was given the visiting yachtsmen at the Seaside, where the utmost goodfellowship prevailed, and a race to Hilo arranged, in which the Lurline was again the victor.

OUT DOOR SPORTS.

The sportive spirit in the youth of all nationalities here for the national game is manifest. Baseball has certainly had its innings this year, interest being furthered in visits of the Santa Clara College Club from the coast, the Keio nine from Japan, teams also from Hilo and Wailuku, and the passing through of the "All American" team en route to the Orient. Local teams have multiplied and the continuous season of the various leagues through the year, Sundays included, has in effect materially surfeited the community.

Interest in golfing grows with the opportunity for its regular exercise at the delightful grounds of the Country Club in Nuuanu, with its ideal links, as also those of Haleiwa, at Waialua,

* Omitting fractions.

which call frequent parties from town by auto, and train for its occasional tournaments.

Another series of inter-island polo contests took place this past summer, in which much interest centered, the contesting teams being the Maui, Kauai and Oahu clubs. This time the Maui visiting team carried off the honors.

Following last year's attempt to introduce here the Cowboy exhibition of the West, another series of roping contests was carried through under the leadership again of Mr. Eben Low. This was timed so as to be one of the attractions for the Atlantic Fleet visitors, but with so much else going on during their brief stay it fell short of financial appreciation. Mr. Low later took his posse of Hawaiian vaqueros to the Cheyenne exhibition where two of them came off with highest honors in the various contests.

Surf riding—that exclusively national Hawaiian sport—is reviving encouragingly; the attractiveness of Waikiki waters affording safe schooling grounds, if we may so term it, for practice in this exhilarating aquatic exercise proving an irresistible allure-ment to many other than island born. The formation this summer of an “out-rigger club” to which the gentler sex may now be admitted to membership, is an aid to the movement and with its occasional tournaments will enhance the fame of Waikiki.

The rest house at Haleakala has been reconstructed by Mr. W. O. Aiken, of Paia, for the benefit of tourists and sight seers. This was originally built by Mr. C. W. Dickey, of stone, but vandals and time had played havoc therewith. The county will fix the trail to this summit attraction.

A new and macadamized road to Halemaumau, in the volcano of Kilauea, is being constructed by prison labor, which will materially lend to its attractiveness and modify the fatigue of the trip.

Work on the Nuuanu Dam was renewed early in the year under a new \$123,445 contract for its completion with Mr. L. M. Whitehouse, who succeeds himself in its construction. Work thereon has been prosecuted with vigor, though certain features therein suffers delay through our dry weather spell.

INVESTIGATIONS.

Various investigating Commissions have been strenuously at work this past year in accordance with resolutions of the last legis-

lature for reports and recommendations at its next session, one relating to taxation and the other on land matters. Both of these Commissions invited public conferences and communications of views thereon; the Advisory Land Law Commission visiting different parts of the islands for the purpose of securing better knowledge of local conditions and needs.

The Territorial Conservation Commission is gathering data for future use on questions relating to forest land, water supply, and other natural resources, and the recent visit of Mr. Newell on Reclamation work enquiry afforded an opportunity for timely suggestions on the work proposed.

OFFICIAL CHANGES.

The main changes in Territorial officials since last issue embrace the following:

Charles T. Wilder, assessor first division, vice Jas L. Holt, resigned.

Dr. L. E. Cofer succeeded L. E. Pinkham as president of the Board of Health, but resigning after a short while, has been succeeded by Mark Robinson.

Jos. H. Kunewa, tax assessor second division, vice Wm. T. Robinson, resigned.

J. L. Kaulukou, district justice for Kailua, vacant by death of George Clark.

L. A. Andrews, district justice for Hilo, vacant by death of G. W. A. Hapai.

BUSINESS CHANGES.

Hayselden Tobacco Co. dispose of their stock and fixtures to Fitzgerald & Co., who concentrate and move to store formerly occupied by the Honolulu Drug Co., the latter having moved to the Odd Fellows building.

Rosenberg Brothers, retiring, dispose of the stock of their two stores to L. B. Kerr & Co.

The Regal Shoe Co. opens for business in the McCandless building, corner of King and Bethel streets.

Wall, Nichols Co. branches out to now include the Cummins block, Fort street, formerly occupied by the Pacific Hardware Co.

The Hawaiian News Co. concentrate in the Young building store, on Bishop street, and are succeeded at their Merchant street stand in stationery and news by Oat & Mossman.

A. R. Gurry Jr. & Co. succeed the Hawaiian Photo Supply Co. through purchase of Mrs. Crook's interest therein.

The Hawaiian Office Specialty Co. changes hands and management, and shortens title to Office Supply Co.

RAPID TRANSIT MISHAP.

The Rapid Transit service of Honolulu suffered an interruption for awhile in April last, through the bursting of boiler tubes which happened on Easter Sunday morning, seriously effecting certain routes of the system, and a like mishap occurred toward evening of the same day, in which an engineer and a fireman were badly scalded. By this second accident, with two boilers disabled, the entire service had to be cut in half, and suspension was long enough for the community to realize the convenience and necessity of the system and how dependent we had become to it. Gradually, to the great relief of the public, first half time, then regular service was resumed, in the course of a day or two, throughout the city.

FIRES.

There have been twenty-nine fires throughout the islands reported since our last issue, the principal ones being as follows:

March 4th, the Vierra cottage on Punchbowl slope was burned down, the adjoining buildings narrowly escaping like fate. No insurance.

The residence of Judge Humphreys, Nuuanu avenue, was destroyed by fire on the night of April 14th, and much of its furnishings ruined; damages estimated at \$20,000, largely covered by insurance.

April 21st, from unknown cause, fire destroyed the Hilo Foreign church parsonage, in which the infant child of Rev. Mr. Shields, left in the care of a Japanese, lost its life.

An early morning fire, April 25th, destroyed the Palolo residence of F. H. Kilby, valued at over \$3,000; partly covered by insurance.

September 2nd, fire destroys the landing warehouse of the Honoum Plantation, with its contents of sugar and general merchandise.

Including the December fires reported in last ANNUAL, the amount of insurance paid has been \$36,516.35, being distributed as follows: Oahu, \$28,392.65; Hawaii, \$6,623.70; Kauai, \$1,500; the largest losses being Sing Loy & Co., \$6,000; Waimanalo Sugar Co., \$3,403; Judge Humphreys, \$16,628, and Honoum Sugar Co., \$4,123.

MARINE CASUALTIES.

German steamer Tolosan, from Seattle for Vladivostok, arrived in distress January 7th, 1908, having sustained much damage in a heavy gale to vessel and life boats, the steering gear breaking down and rendering the ship unmanagable for hours, during which time the quartermaster was lost overboard and her cargo shifted. After several ineffectual attempts hand steering gear was effected finally and the weather moderating she bore away for this haven, where temporary repairs were made and the voyage resumed.

American ship Eclipse, Larsen master, from Newcastle for San Francisco with coal, was abandoned in a sinking condition January 11th, 1908, with loss of spars and bulwarks, and leaking beyond the pumps' capacity to free her, in Lat. 36 N. and Long. 155 W. The officers and crew, comprising sixteen souls, set forth in two boats to reach these islands, some 950 miles distant, the captain in charge of the life boat with eight men, while the first officer commanded the ship's boat with six men. In a heavy gale the following night the mate's boat was capsized and lost, with all its provisions and water for the voyage, the men, however, being all rescued by the life boat. This boat was found to be in weak condition so that ropes were lashed around her to hold her together. All hands had to be put on short rations, with but half a pint of water a day per man. As a result all but two drank salt water, more or less, in consequence of which, and exposure, three of the crew went insane and died the day before reaching shore. Captain Larsen landed his surviving exhausted boat's crew at Hana, Maui, January 27th, where they were kindly cared for till an opportunity occurred by the Claudine to reach this city,

where, under the care of Dr. Ramus of the Marine Hospital Service, they gradually recovered from the effects of their perilous voyage.

Ship Bangalore, Colly, with coal from Norfolk for the Naval Station at this port, sailed October 23rd, 1907. She was spoken November 24th in Lat. 7 N. and Long. 21 W., since which time she has not been heard from.

The coasting schooner Lady, 29 tons, was stolen from her moorings in Honolulu harbor on the night of April 4-5, and on the morning of the 7th she drifted ashore off Keaau, Waianae, Oahu, and shortly afterward was abandoned by her crew of two, deserters from Fort Shafter, eventually going to pieces; her two masts being the only things saved.

Schooner Alice Cooke, from this port July 3rd for the Sound, experienced heavy gales on the voyage. In Lat. 39.59 N. Long. 150 W. in shipping heavy seas the rudder stock was carried away. Jury steering gear was rigged up and slow progress made toward San Francisco, arriving after a 40 days' voyage, for repairs, then continued to her destination.

Island schooner Rob Roy drifted on the reef off Kalihi in the early morning of September 29th and quickly went to pieces. The captain and her Japanese sailors reached shore safely. She was one of Oahu's oldest coasters, having been built at Koolau early in the sixties.

P. M. S. S. Asia, arriving here November 7th, reported having experienced a severe typhoon a few days out from Japan, lasting some five hours, during which time three life boats were carried away and another one smashed in its stocks.

Schooner Ka Moi was towed into port November 30th with loss of topmast and damaged foremast and rigging from a heavy gale the night previous in the Hawaii channel on her trip from Hilo.

DUE APPRECIATION.

Hawaii through its Promotion Committee presents a koa mantelpiece of competitive design to Mark Twain in recognition of his friendly interest in the islands. He it was who years ago wrote so graceful a prose poem tribute to Hawaii that added years but intensify its depth of meaning.

In like manner the Chamber of Commerce show appreciation of the many years services of Gorham D. Gilman of Boston, in the interests of Hawaii by a testimonial and kou calabash suitably inscribed. Following this a circle of old time friends sent him a handsome koa dining table and an engrossed illuminated letter, but unfortunately, through mishaps of the sea, the table is reported sunk in New York harbor.

SMART PASSAGES.

In June last the new Japanese steamship Tenyo Maru, on her maiden voyage, made the passage from Yokohama to Honolulu in 8 days and 5 hours, and from this port to San Francisco in 4 days and 18 hours, beating all records in both cases.

The Canadian-Australian S. S. Manuka made a fast trip of 7 days from Vancouver to this port in June last, the second best on record.

FLORAL PARADE.

Last floral parade day, February 22nd, was carried through with much enthusiasm. Its original feature of pa-u riding was augmented by cowboy brigades, and the whole eclipsed by the number of automobiles, carriages and other vehicles, including the Fire Department and sundry floats, competitively decorated for prize winning, and proving a brilliant success. The place of exhibition and judges stand this year was in the grounds of Oahu College.

REAL ESTATE MATTERS.

By courtesy of Registrar Merriam the following data covering recorded instruments, with its comparative table of the three fiscal years ending June 30th, shows marked improvement in real estate and monetary conditions this past year:

	1906	1907	1908
Deeds	1359	1517	1549
Mortgages	553	461	449
Leases	348	338	339
Bills of Sale	125	117	112
Attachments	2	3	1
Miscellaneous	923	889	1137
Total	3310	3325	3587

The business for the five months, July to and including November, of this year, indicates greater activity for the current year than for any preceding year since 1903, and from the character of the documents placed on record an extensive tendency toward the acquirement of home sites is apparent. During the last three months a large amount of money has been loaned at a reasonable rate of interest upon residential security.

The outlook for continued activity in real estate appears bright.

BUILDING MATTERS.

First impulse under this head would be to note another year of inactivity, especially within city limits, the only business structure in progress being the Yokohama Specie Bank, corner of Bethel and Merchant streets, but beyond this circle a different condition prevails. Much has been done in the suburbs in cottage residences, and schools and churches have had more than usual attention.

The enlargement of St. Andrew's Cathedral by the addition of two bays was finished by Easter, and work on its Davies memorial parish house is nearing completion.

Central Union church has erected an additional building, 50x60 feet in size, on its adjoining Beretania street premises for its Sabbath school and other needs.

The new McKinley High School building, opposite Thomas Square, on Victoria street, is an important addition to the city's need, the corner stone of which was laid with appropriate historic literary exercises March 5th. The contract for this building went to Wm. C. Chalmers for the sum of \$52,521, and was dedicated September 11th for the opening of the school year, though not entirely completed. A full description of this building is given elsewhere.

Several other new school buildings and additions in different parts of the islands have been erected or are in progress, yet the steady increase of our population demands that appropriation for more and larger schools be asked of the next legislature.

Atherton Hall, the Kawaiahao Seminary building of the Mid-Pacific Institute, near College Hills, has progressed so favorably as to permit opening the school September 12th. With this moving of the Seminary to Manoa its old structure on King street has

been demolished and the property disposed of for other purposes.

At Oahu College the corner stone of its Library Building, the gift of Mr. and Mrs. C. M. Cooke, was laid with appropriate ceremonies May 13th, and under its contractor, John Ouderkirk, is making good progress.

Wailuku court house, claimed to be the finest in the Territory, a two-story building, was completed in June. It is 52x68 feet in size, and built of concrete. The upper portion is designed for court purposes and the lower for tax and water works offices.

Hilo is favored by the recent completion of a new church, on Waianuenue street.

Work on the additional buildings of Fort Shafter, has been begun, so as to double its present capacity, the contract for which went to a mainland firm instead of local parties, of which there were three bidders.

PROMINENT SHIPMENTS.

In February last an experimental shipment of 1,000 cases of Hawaiian honey went to Japan, and in August 100 tons of island honey, largely the product of the American Sugar Co. apiaries, on Molokai, was shipped to San Francisco by F. L. Waldron, the principal part of which was destined for the London market. The shipments were put up in five-gallon tins, two to a case.

By the Hilonian, in January, 1908, there was shipped to the coast \$12,000 worth of Hawaiian tanned leather, in the place of hides as formerly. This shows development of local industries.

MISCELLANEOUS.

The American Relief Society, after an active existence of forty years, assigned its funds and service to the Associated Charities, in June last, and retires from direct charitable work.

The Children's Hospital, mooted last year, received by August 8th the required \$100,000 for its establishment and a site for it has been secured on Kuakini street, and is chartered under the name of the Kauikeolani Children's Hospital.

Dr. Robert Koch, the world's most famous bacteriologist, during a brief stop over en route to Japan, made a visit to the Molokai settlement and was very favorably impressed with what Hawaii is doing for its afflicted wards.

August 17th, 1908, the Bank of Bishop & Co. enjoyed its fiftieth anniversary since opening as a bank of savings and deposit, the origin of Chas. R. Bishop and Wm. A. Aldrich, in the Makee block.

Surveyors are at work on the projected extension of the Kahului Railroad to reach Haiku to accommodate the rapidly growing pineapple industry in that section. The crossing of Maliko gulch is the main problem.

An authoritative suggestion has been made that the volcano of Kilauea, and the Cook's Monument site, at Kealahou bay, might be properly set aside under the National Park reservation law.

NECROLOGY.

The grim reaper has claimed an unusual number this past year of those well known by long years of residence, or prominent in their sphere of labor in the islands, among whom are the following:

Jas. A. Low, at Vladivostok; Mrs. Z. S. Spalding, in Los Angeles; F. W. Wundenberg; Frank Scott, at Kilauea; Wm. Austin Whiting; Gilbert Waller, in San Francisco; Mrs. W. L. Green; H. W. Severance, at Dover, N. H.; Frank L. Hoogs; Bill Williams (light-house keeper for over 30 years); J. J. Hair, in Glasgow; Mrs. C. B. Damon, in Albany, N. Y.; J. A. Burgett; Goo Kim Fui; Wm. O. Atwater; Aug. Dreier, on voyage to Germany; J. W. Pfluger, in Bremen; Prince David Kawanānakoā, Mrs. A. Turton and Alex. Crow, in San Francisco; Guy Owens; Mrs. Dr. Derby, in Kohala; Mrs. Anna Long; Wm. Needham; Judge Hapai, of Hilo; Judge George Clark, at Kailua; Mrs. Paul Neuman, at sea; E. B. Thomas; T. Rain Walker, in England; W. G. Smith, of Kauai; Mrs. Campbell-Parker; Rev. Dr. H. Bingham, in Baltimore.

List of Sugar Plantations, Mills and Cane Growers Throughout the Islands.

Those marked with an asterisk (*) are planters only; those marked with a dagger (†) are mills only; all others are plantations complete, owning their own mill. (Corrected to Dec. 1, 1908.)

NAME.	LOCATION.	MANAGER.	AGENTS
Apokaa Sugar Co.*.	Ewa, Oahu.....	G. F. Renton.....	Castle & Cooke
Ewa Plantation.....	Ewa, Oahu.....	G. F. Renton.....	Castle & Cooke
Gay & Robinson*....	Makaweli, Kauai..	Gay & Robinson..	H. Wat'h'se Tr. Co.
Grove Farm*.....	Nawiliwili, Kauai.	Ed. Broadbent....	Hackfeld & Co.
Hakalau Plant. Co....	Hilo, Hawaii.....	J. M. Ross.....	Irwin & Co.
Halawa Sugar Co....	Kohala, Hawaii...T. S. Kay.....		H. Wat'h'se Tr. Co.
Hamakua Mill Co....	Hamakua, Hawaii..	A. Lidgate.....	Davies & Co.
Hawi Mill & Plant....	Kohala, Hawaii...J. Hind.....		Hind, Rolph & Co.
Haw. Agr. Co.....	Kau, Hawaii.....	W. G. Ogg.....	Brewer & Co.
Haw. Com. & S. Co....	Puunene, Maui...F. F. Baldwin....		Alex. & Baldwin
Hawaiian Sugar Co....	Makaweli, Kauai..	B. D. Baldwin....	Alex. & Baldwin
Hawaii Mill Co.....	Hilo, Hawaii.....	W. H. Campbell..	Hackfeld & Co.
Hilo Sugar Co.....	Hilo, Hawaii.....	John A. Scott....	Irwin & Co.
Honolulu Plant. Co....	Halawa, Oahu....Geo. Ross.....		Irwin & Co.
Honokaa Sugar Co....	Hamakua, Hawaii..	K. S. Gjerdrum...	Schaefer & Co.
Honomu Sugar Co....	Hilo, Hawaii.....	Wm. Pullar.....	Brewer & Co.
Hutchinson S. P. Co.	Kau, Hawaii.....	C. Wolters.....	Irwin & Co.
Kaeleku Sugar Co....	Hana, Maui.....	J. Chalmers.....	Davies & Co.
Kahuku Plantation...	Kahuku, Oahu....Andrew Adams...		Alex. & Baldwin
Kekaha Sugar Co....	Kekaha, Kauai...H. P. Faye.....		Hackfeld & Co.
Kilauea S. Plant. Co.	Kilauea, Kauai...J. R. Myers.....		Irwin & Co.
Kipahulu Sugar Co....	Kipahulu, Maui...H. Haneberg....		Hackfeld & Co.
Kohala Plantation...	Kohala, Hawaii...Geo. C. Watt....		Castle & Cooke
Koloa Sugar Co.....	Koloa, Kauai....W. Weinzheimer..		Hackfeld & Co.
Kona Developmt Co....	Kona, Hawaii....W. M. McWayne..		Hawn. D'l'pmt Co.
Kukaiau Mill Co.†...	Hamakua, Hawaii..	E. Madden.....	Davies & Co.
Kukaiau Plant. Co....	Hamakua, Hawaii..	Albert Horner...	Hackfeld & Co.
Laie Plantation.....	Laie, Oahu.....	S. E. Wooley....	Alex. & Baldwin
Laupahoe S. Co....	Laupahoe, Ha...C. McLennan....		Davies & Co.
Lihue Plantn. Co. ...	Lihue, Kauai....F. Weber.....		Hackfeld & Co.
Makee Sugar Co....	Kealia, Kauai....G. H. Fairchild..		
Maui Agrl. Co.....	Haiku, etc., Maui.	H. A. Baldwin....	Alex. & Baldwin
McBryde Sugar Co....	Wahiawa, Kauai..	W. Stodart.....	Davies & Co.
Niulii Mill & Plant....	Kohala, Hawaii...Robert Hall.....		Davies & Co.
Oahu Sugar Co.....	Waipahu, Oahu...E. K. Bull.....		Hackfeld & Co.
Olaa Sugar Co.....	Olaa, Hawaii.....	Ino. Watt.....	Bishop & Co.
Olowalu Sugar Co....	Olowalu, Maui....Geo. Gibb.....		Irwin & Co.
Onomea Sugar Co....	Hilo, Hawaii.....	John T. Moir....	Brewer & Co.
Ookala Sugar Co....	Ookala, Hawaii...W. G. Walker....		Brewer & Co.
Paauhau S. Plant. Co.	Hamakua, Hawaii..	Jas. Gibb.....	Irwin & Co.
Pacific Mill (†)....	Hamakua, Hawaii..	Aug. Ahrens.....	Schaefer & Co.
Pepeekeo Sugar Co....	Hilo, Hawaii.....	Jas. Webster.....	Brewer & Co.

List of Sugar Plantations, Mills and Cane Growers Throughout the Islands—Continued.

NAME.	LOCATION.	MANAGER	AGENTS.
Pioneer Mill Co., Ltd.	Lahaina, Maui.	L. Barkhausen.	Hackfeld & Co.
Puakea Plant. Co.*.	Kohala, Hawaii.	H. R. Bryant.	H. Wat'h'se Tr. Co.
Puako Plantation.	S. Kohala, Haw.	J. C. Searle.	Hind, Rolph & Co.
Union Mill Co.	Kohala, Hawaii.	H. H. Renton.	Davies & Co.
Waiakea Mill Co.	Hilo, Hawaii.	C. C. Kennedy.	Davies & Co.
Waialua Agrl. Co.	Waialua, Oahu.	W. W. Goodale.	Castle & Cooke
Waianae Plantation.	Waianae, Oahu.	Fred Meyer.	J. M. Dowsett
Wailuku Sugar Co.	Wailuku, Maui.	H. B. Penhallow.	Brewer & Co.
Waimanalo S. Co.	Waim'nalo, Oahu.	Geo. Chalmers.	Irwin & Co.
Waimea Sug. M. Co.	Waimea, Kauai.	Jno. Fassoth.	Castle & Cooke

HAWAIIAN FOLK TALES.—Time has gone by when vain enquiry is made for any work on the legends and traditions of the Hawaiian people, that long felt want being now met by the excellent and finely illustrated collection under the above title embracing some thirty of the most noted that have been handed down from ancient time, including six stories of the mythical race of Menchunes—Hawaiian Brownies—that figured so prominently in traditional construction and engineering work in various parts of the islands.

This compilation of translations from authentic sources, touching the mythology of the land we live in, has been made with the view of retaining the original simplicity of thought, customs and belief of the people for the better knowledge conveyed thereby of their probable origin, migrations and mode of life rather than lose this scientific value by literary embellishment. As such it has received flattering notice at the hand of reviewers and has been accorded a very gratifying reception by the reading public.

The work is a large 12 mo. volume of 274 pages, with glossary and sixteen full page half-tone illustrations, published by A. C. McClurg & Co., in cloth, gilt top, at \$1.75, or half sheep or morocco at \$4.00, net.

"This is a compilation by Mr. Thos. G. Thrum, and in doing so he has conferred a favor on all Polynesian scholars. Many of these tales and traditions have the true Polynesian ring about them. * * * Some of the tales given are common property of the race, and are not peculiar to Hawaii, although, as so often happens, they are localized. * * * These legends belong to a very ancient period in the history of the race, long before the separate branches took up their quarters in Hawaii, New Zealand, Tahiti, Samoa, or other parts.

"Our word to Mr. Thrum is 'wela ka hao,' and we express the hope that he and his collaborators will follow up this volume with others on the same line, for in so doing he will give great pleasure to Polynesian scholars."—*Jour. Pol. Soc.*

HAWAIIAN SUGAR CROPS IN TONS, 1903-1908.

From Table Prepared for Hawaiian Planters' Association, by
W. O. Smith, Secretary.

(Earlier years from 1892 can be found in the Annual for 1901)

ISLANDS.	1903	1904	1905	1906	1907	1908
Production of Hawaii.....	170,665	122,865	126,405	137,250	143,891	180,159
" Maui.....	83,776	77,985	100,434	102,960	104,772	122,629
" Oahu.....	121,066	102,919	123,095	113,750	119,273	137,013
" Kauai.....	61,484	64,606	76,314	74,753	72,081	81,322
Grand Total	437,991	367,475	426,248	429,213	440,017	521,123
HAWAII PLANTATIONS.						
Waiakea Mill Co.....	9,954	6,151	7,661	10,766	8,186	9,761
Hawaii Mill Co.	1,503	1,728	1,438	1,825	1,800	2,818
Hilo Sugar Co.....	13,108	7,701	9,971	11,751	11,649	12,853
Onomea Sugar Co.	13,472	10,940	11,049	13,930	12,432	17,006
Pepeekeo Sugar Co.....	6,000	4,907	6,167	6,477	6,677	7,590
Honomu Sugar Co.....	6,384	5,489	5,909	5,852	5,502	7,511
Hakalau Plantation Co.....	11,293	8,396	10,862	12,869	11,914	12,834
Laupahoehoe Sugar Co.....	4,856	4,336	5,866	7,864	7,848	7,944
Ookala Sugar Plantation Co.....	3,942	2,214	3,712	3,223	5,352	5,195
Kukaiiau Plantation Co.....	1,746	1,275	1,415	2,154	2,103	2,141
Kukaiiau Mill Co.....	1,646	1,274	1,416	1,435	1,402	1,427
Hamakua Mill Co.....	6,950	4,691	5,925	6,358	6,835	12,355
Paauhau Sugar Plantation Co.....	9,136	7,533	8,006	8,795	7,857	10,448
Honokaa Sugar Co.....	8,587	7,402	6,895	7,940	6,898	7,657
Pacific Sugar Mill.....	6,059	3,388	4,342	4,331	2,931	3,459
Niulii Mill and Plantation.....	1,903	1,189	1,645	2,226	2,501	2,452
Halawa Plantation.....	1,860	1,016	925	1,036	1,615	1,958
Kohala Sugar Co.....	5,409	2,663	3,350	3,300	2,400	4,914
Union Mill Co.....	3,380	1,776	2,166	2,570	2,828	3,259
Hawi Mill	5,563	3,631	3,687	4,389	5,296	7,125
Kona Development Co.*.....	1,850	897	.....	.....	.....	1,000
Hutchinson Sugar Plntn. Co..	7,527	5,741	7,107	6,940	7,063	9,628
Hawaiian Agricul. Co.....	18,888	10,954	1,620	826	11,630	10,274
Puakea Plantation.....	366	201	262	398	400	661
Olaa Sugar Co.....	15,030	13,788	11,361	9,405	9,431	15,795
Puna Sugar Co.....	3,603	3,146	3,147	867	1,172	1,691
Puako Plantation.....	550	438	500	223	169	403
	170,655	122,865	126,405	137,750	143,891	180,159

* Succeeding Kona Sugar Co.

HAWAIIAN SUGAR CROPS, 1903-1908 - Continued.

MAUI PLANTATIONS.	1903	1904	1905	1906	1907	1908
Kipahulu Sugar Co.....	1,622	1,415	1,324	1,464	1,809	1,843
Kaeleku Plantation Co....	4,922	2,662	2,720†	850	2,702	3,026
Haiku Sugar Co.....	6,397	*	.....	.....	.....	.....
Paia Plantation	7,856	13,521	17,820	19,861	20,220	22,627
Haw'n Coml & Sug. Co..	33,230	29,829	39,411	43,652	44,143	56,150
Wailuku Sugar Co.	7,490	6,451	7,516	7,828	7,425	10,072
Olowalu Co.....	843	1,125	1,652	1,635	1,448	1,765
Pioneer Mill Co., Ltd....	16,530	17,036	25,581	22,509	23,099	27,146
Kihei Plantation Co., Ltd.	5,629	5,461	4,410	5,161	3,926	†.....
Maui Sugar Co.....	257	485	.....	.....	.....	.....
	84,776	77,985	100,434	102,960	104,772	122,629
OAHU PLANTATIONS.						
Waimanalo Sugar Co.....	3,218	2,963	3,428	4,148	3,186	4,242
Laie Plantation.....	724	597	857	1,112	873	971
Kahuku Plantation Co....	8,212	6,360	7,431	6,689	6,500	6,519
Waiialua Agricultural Co.	19,800	18,682	19,722	20,788	22,614	30,376
Waianae Co.....	5,348	5,500	5,128	5,490	6,214	5,686
Ewa Plantation Co.....	33,162	29,797	32,380	29,302	31,790	33,919
Apokaa Sugar Co.....	610	874	454	865	461	984
Oahu Sugar Co.....	29,256	20,870	33,589	26,710	28,457	35,320
Honolulu Plantation Co.	20,736	16,376	20,106	18,646	19,178	18,996
	121,066	102,019	123,095	113,750	119,273	137,013
KAUAI PLANTATIONS.						
Kilauea Sugar Plntn Co.	3,012	1,850	2,290	2,700	3,844	3,194
Makee Sugar Co.....	8,215	7,840	8,335	7,986	6,696	7,408
Lihue Plantation Co.....	11,375	14,611	14,185	16,005	14,127	14,445
Grove Farm Plantation...	1,896	1,679	1,679	1,933	1,807	2,508
Koloa Sugar Co.....	4,825	6,172	6,172	5,570	5,553	7,361
McBryde Sugar Co.....	11,922	10,535	13,136	11,024	7,890	11,294
Hawaiian Sugar Co.....	10,324	11,493	19,062	18,616	20,140	21,633
Gay & Robinson.....	1,645	1,665	2,151	2,099	2,590	2,675
Waimea Sugar Mill Co....	540	627	1,305	1,550	1,425	1,790
Kekaha Sugar Co.....	7,064	7,447	7,318	6,626	7,329	8,283
Estate of V. Knudsen....	666	687	680	644	680	731
Total.....	61,484	64,606	76,314	74,753	72,081	81,322

*The Haiku Sugar Co., and Paia Plantation now comprise the Maui Agricultural Co.

†Now under the Hawaiian Commercial and Sugar Co.

POSTAL SERVICE, TERRITORY OF HAWAII.

Corrected to December 1, 1908.

Frank J. Hare, Inspector in Charge.
Geo. W. Carr, Asst. Sup't. Railway Mail Service.
Jos. G. Pratt, Postmaster.
Jno. T. Stayton, Asst. Postmaster; Wm. McCoy, Chief Registry Clerk;
F. E. Colby, Chief Money Order Clerk; W. C. Kenake, Chief Mailing Clerk; F. T. Sullivan, Supt. of Delivery.

POSTMASTERS ON HAWAII.

Hilo.....	Geo. Desha	Keauhou.....	Mrs. H. L. Kawewehi
Pepeekeo	Geo. Watt	Holualoa.....	L. S. Aungst
Honomu	Wm. Hay	Kailua.....	John P. Curts
Kawaihae	J. Laau	Kealakekua.....	Robt. V. Woods
Mahukona	R. R. Elgin	Napoopoo	R. Wassman
Kukuihaele	W. Horner	Hoopuloa.....	W. H. G. Arnemann
Paauhau	Jas. Gibb	Hookena.....	L. P. Lincoln
Kohala.....	Miss M. R. Woods	Pahala.....	T. C. Wills
Paauiilo.....	Anthony Lidgate	Honuapo.....	C. P. Akamu
Laupahoe.....	E. W. Barnard	Waiohinu.....	Anna H. McCarthy
Ookala.....	W. G. Walker	Naalehu	Carl Wolters
Honokaa.....	A. B. Lindsay	Hakalau	Wm. Ross
Mountain View.....	H. G. Junkin	Olaa	John Watt
Kalapana	Dan'l Kaloi	Papaaloa	Alfred C. Palfrey
Volcano House.....	D. Lycurgus	Lalamilo.....	J. C. Searle

POSTMASTERS ON MAUI.

Lahaina	Arthur Waal	Kipahula	Mrs. J. Glenn
Wailuku.....	M. T. Lyon	Kahului.....	J. N. S. Williams
Makawao.....	A. F. Tavares	Paia	D. C. Lindsay
Hana	N. Omsted	Hamakuapoko.....	W. F. Mossman
Puunene.....	H. P. Baldwin	Haiku	Jas. Lindsay
Kaupo	Jas. Keawe	Keapae.....	J. W. K. Halemano
Makena.....	D. Kapohakukimohewa	Waiakoa	Joaquin Vincent
Kihei	Fred. Hayselden	Keokea.....	L. C. Akana
Honokohau.....	R. C. Searle		

POSTMASTERS ON OAHU.

Aiea (acting).....	Geo. Ross	Kahuku	Andrew Adams
Pearl City.....	J. P. Keppler	Laie.....	S. W. Woolley
Waipahu.....	J. H. Travis	Kahana.....	M. Kaanaana
Wahiawa.....	L. G. Kellogg	Hauula.....	Mrs. E. W. Hay
Ewa.....	Geo. F. Renton	Punaluu	D. Kaapa
Waianae	F. Meyer	Waikane	Sam'l Waiwi
Waialua.....	C. A. De Cew	Heeia	Frank Pahia
Haleiwa.....	St. Clair Bidgood	Waimanalo	A. Irvine

POSTMASTERS ON KAUAL.

Lihue	Frank Crawford	Kealia.....	Jno. W. Neal
Koloa	A. Buchholtz	Kilauea.....	J. R. Myers
Hanapepe.....	H. H. Brodie	Kekaha.....	A. F. Knudsen
Makaweli.....	B. D. Baldwin	Waimea.....	C. B. Hofgaard
Eleele.....	Mrs. J. I. Silva	Hanalei.....	W. F. Sanborn

POSTMASTERS ON MOLOKAI AND LANAI.

Pukoo	D. K. Ilae	Keomoku	Chas. Gay
Kalae	Ellen Sobey	Kalaupapa.....	J. S. Wilmington
Pelekunu	J. Kapahu	Kaunakakai	F. Minamina
Halawa	M. H. Kane		

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Office hours of the General Delivery are from 6 a. m. to 12 o'clock midnight. On legal holidays the time is from 8 a. m. to 9 a. m. On Sundays, from 9 to 10 a. m.

Hours of the Stamp and Registry Department are from 8 a. m. to 6 p. m., and of the Money Order Department from 8.30 a. m. to 5 p. m.

The General Delivery is open (except Sundays and holidays) from 6 a. m. till midnight, for the delivery of mail, registering of letters and issuance of Money Orders.

Inter-Island mails close forty-five minutes before the sailing of steamers, excepting steamers sailing at noon Tuesdays and Fridays, which close at 11 a. m. For foreign ports the ordinary mails close one hour prior to steamers' departure.

RATES OF POSTAGE, DOMESTIC.

First class matter (letters, etc.).....	2 cents per oz. or fraction
Second class (newspapers and periodicals).....	1 cent per 4 oz. or fraction
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Fourth class (merchandise—limit of weight 4 lbs.).....	
.....	1 cent per oz. or fraction
Registration Fee (additional postage).....	8 cents
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 p. 61.
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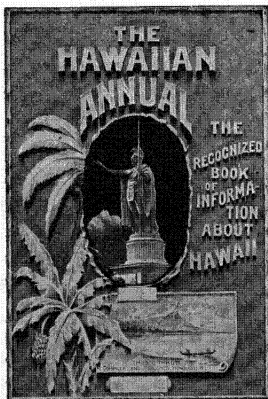
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FOR 1909.

Corrected to December 1, 1908.

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HONOLULU STOCK AND BOND EXCHANGE.

Organized August 8, 1898.

President R. W. Shingle
Vice-President Z. K. Meyers
Secretary W. Williamson
Treasurer Bishop & Co.

HAWAIIAN SUGAR PLANTERS' ASSOCIATION.

Re-organized Nov. 18, 1895.

President S. M. Damon
Vice-President W. G. Irwin
Secretary and Treasurer W. O. Smith
Assistant Secretary R. D. Mead
Auditor G. H. Robertson
Trustees—E. D. Tenney, W. G. Irwin, S. M. Damon, F. A. Schaefer, F. M. Swanzy, H. P. Baldwin, J. F. Hackfeld, E. F. Bishop, W. O. Smith.

EXPERIMENT STATION OF PLANTERS' ASSOCIATION.

Experiment Station Staff—Agricultural and Chemical Division.

Director and Chemist C. F. Eckart
Assistant director Noel Deerr
First Assistant Chemist S. S. Peck
Assistant Chemists—R. S. Norris, F. R. Werthmuller, A. E. Jordan, F. T. Dillingham.
Agriculturist E. G. Clarke
Field Foreman
Sub-Station Assistant J. H. Wale
Fertilizer Sampler J. F. Melanphy

Entomological Division.

Director R. C. L. Perkins
Consulting Entomologist A. Koebele
Assistant Entomologists—G. W. Kirkaldy, F. W. Terry, Otto H. Swezey, F. Muir.

Pathological and Physiological Division.

Director L. Lewton-Brain
Assistant Pathologist H. L. Lyon
Assistant Pathologist C. D. Larsen
Illustrator W. R. Potter
Cashier G. H. Tuttle

HAWAIIAN ENTOMOLOGICAL SOCIETY.

Organized 1905.

President O. H. Swezey
 Vice-President D. L. Van Dine
 Secretary and Treasurer D. B. Kuhns
 The above officers also constitute the Executive Committee.

BOARD OF MARINE UNDERWRITERS—AGENCIES.

Boston C. Brewer & Co.
 Philadelphia C. Brewer & Co.
 New York Bruce Cartwright
 Liverpool Theo. H. Davies & Co.
 Lloyds, London Theo. H. Davies & Co.
 San Francisco Bishop & Co.
 Bremen F. A. Schaefer

BOARD OF FIRE UNDERWRITERS OF TERRITORY OF HAWAII.

F. A. Schaefer President
 J. A. Gilman Vice-President
 A. R. Gurrey Secretary
 Bishop & Co. Treasurer
 H. Hackfeld & Co. Auditor

QUEEN'S HOSPITAL.

Erected in 1860.

President The Governor
 Vice-President E. F. Bishop
 Secretary Geo. W. Smith
 Treasurer W. W. North
 Auditor M. P. Robinson
 Physicians—Drs. G. F. Straub, E. C. Waterhouse.
 Resident Physician Dr. L. Sexton
 Oculist and Aurist Dr. W. G. Rodgers
 Superintendent J. F. Eckardt
 Head Nurse Miss E. Maloney
 Matron Mrs. E. J. Willcock
 Executive Committee—A. S. Cleghorn, E. F. Bishop, Geo. W. Smith, W. H. McInerney, H. F. Wichman.

LEAHI HOME.

Organized April 4, 1900.

President Alex. Young
 Vice-Presidents—W. O. Smith, C. H. Atherton.
 Secretary Geo. F. Davies
 Treasurer A. W. T. Bottomley
 Auditor J. P. Cooke
 Medical Supt. A. N. Sinclair, M. B. C. M.
 Asst. Supt. H. Taylor
 Matron Mrs. H. Taylor
 Trustees—Alex. Young, J. P. Cooke, C. H. Atherton, T. Clive Davies, A. W. T. Bottomley, W. O. Smith.

SAILORS' HOME SOCIETY.

Organized 1853. Meets annually in December.

President F. A. Schaefer

Vice-President A. S. Cleghorn
 Secretary C. H. Atherton
 Treasurer W. W. Hall
 Executive Committee—A. Fuller, W. W. Hall, J. A. Kennedy.

THE FARMERS' INSTITUTE.

Organized Jan. 23, 1902.

President W. T. Pope
 Vice-President F. G. Krauss
 Secretary and Treasurer W. Weinrick, Jr.
 Directors—R. S. Hosmer, P. L. Horne and Jared G. Smith.

CIVIC FEDERATION.

Organized Jan. 26, 1905.

President
 Vice-President Dr. D. Scudder
 Secretary Ed. Towse
 Treasurer C. H. Dickey

LIBRARY AND READING ROOM ASSOCIATION.

Organized March. Incorporated June 24, 1879.

President J. H. Fisher
 Vice-President M. M. Scott
 Secretary E. W. Campbell
 Treasurer A. Gartley
 Auditor C. H. Atherton
 Librarian Miss Edna I. Allyn

HAWAIIAN HISTORICAL SOCIETY.

Organized Jan. 11, 1892. Annual Meeting November.

President G. R. Carter
 Vice-Presidents—Dr. W. D. Alexander, N. B. Emerson, Hon. A. S. Hartwell.
 Recording Secretary A. F. Judd
 Cor. Secretary Rev. W. D. Westervelt
 Treasurer W. W. Hall
 Librarian Miss E. I. Allyn

BERNICE PAUAAHI BISHOP MUSEUM.

Board of Trustees.

Henry Holmes President
 Albert F. Judd Vice-Pres. and Secretary
 Joseph O. Carter Treasurer
 Samuel M. Damon, E. F. Bishop, J. M. Dowsett, W. O. Smith.

Museum Staff.

William T. Brigham, A. M., D. Sc. Director
 W. H. Dall, D. Ph. Hon. Curator of Molusca
 John F. G. Stokes Curator of Polynesian Ethnology
 Miss Schupp Assistant and Acting Librarian

C. Montague Cooke, Jr., D. Ph.
 Curator of Pulmonata
 C. N. Forbes. Botanist
 John J. Greene. Printer

BAR ASSOCIATION OF HAWAII.

Organized June 28, 1899.

President W. A. Kinney
 Vice-President A. Perry
 Secretary W. A. Greenwell
 Treasurer W. L. Whitney
 Auditor W. C. Farke

HAWAIIAN ENGINEERING ASSOCIATION.

Organized 1902.

Chairman Jas. T. Taylor
 Vice-Chairman G. H. Gere
 Secretary Harold Lord
 Treasurer Irwin Spaulding
 Directors—Oahn, E. A. Southworth, F. O.
 Boyer, W. G. White.
 Maui, W. D. Lowell.
 Hawaii, R. R. Elgin.
 Kauai, A. F. Ewart.

KILOHANA ART LEAGUE.

Organized May 5, 1894.

President D. Howard Hitchcock
 Vice-President Mrs. W. M. Graham
 Secretary and Treas. Mrs. L. G. Marshall
 Auditor W. A. Love

HAWAIIAN MEDICAL ASSOCIATION.

Organized May 24, 1895. Annual Meeting
 in May.

President Dr. A. N. Sinclair
 Vice-President Dr. F. H. Humphries
 Secretary and Treasurer Dr. J. R. Judd
 Drs. C. B. Cooper, W. L. Moore, with the
 above officers, constitute the Executive
 Committee.

HAWAIIAN SOCIETY SONS OF THE AMERICAN REVOLUTION.

Organized June 17, 1895.

President G. R. Carter
 Vice-President Dr. C. B. Cooper
 Secretary L. A. Dickey
 Treasurer R. J. Pratt
 Registrar S. M. Ballou

ALOHA CHAPTER DAUGHTERS OF THE AMERICAN REVOLUTION.

Organized

Regent Mrs. W. W. Hall

Secretary Miss S. L. Byington
 Registrar Mrs. J. W. Girvin

HAWAIIAN EVANGELICAL ASSOCIA- TION.

Originally Organized 1823.

Constitution revised 1863. Annual Meeting
 June.

President P. C. Jones
 Vice-President W. W. Hall
 Cor. Secretary Rev. Wm. B. Oleson
 Rec. Secretary Rev. W. D. Westervelt
 Treasurer Theo. Richards
 Auditor F. C. Atherton

WOMAN'S BOARD OF MISSIONS.

Organized 1871.

President Mrs. D. Scudder
 Recording Secretary Miss M. L. Sheeley
 Home Cor. Secretary Mrs. W. E. Brown
 Foreign Cor. Secretary Mrs. A. F. Judd
 Treasurer Mrs. B. F. Dillingham
 Asst. Treasurer Mrs. W. L. Moore
 Auditor W. W. Hall

MISSION CHILDREN'S SOCIETY.

Organized 1851. Annual Meeting in June.

President A. C. Alexander
 Vice-President G. R. Carter
 Secretary Mrs. R. W. Andrews
 Recorder R. W. Andrews
 Treasurer L. A. Dickey

YOUNG MEN'S CHRISTIAN ASSOCIA- TION.

Organized 1869. Annual Meeting in April

President R. H. Trent
 Vice-President Edgar Wood
 Rec. Secretary G. S. Waterhouse
 Treasurer F. C. Atherton
 General Secretary Paul Super
 Physical Instructor Dr. E. H. Hand

YOUNG WOMEN'S CHRISTIAN ASSO- CIATION.

Organized 1900.

President Mrs. E. W. Jordan
 Vice-President Mrs. B. F. Dillingham
 Secretary (Acting) Mrs. C. Montague Cooke
 Treasurer Mrs. B. L. Marx
 General Secretary Miss C. O. Moyer

WOMAN'S CHRISTIAN TEMPERANCE UNION OF HAWAII.

Organized December, 1884.

President Mrs. J. M. Whitney

Vice-Presidents—Mrs. D. Scudder, Mrs. P. C. Jones.
 Recording Secretary....Miss Florence Yarrow
 Cor. Secretary.....Mrs. E. W. Jordan
 TreasurerMrs. Lydia Coan
 AuditorW. W. Hall

FREE KINDERGARTEN AND CHILDREN'S AID ASSOCIATION.

Organized 1895.

President.....Mrs. Theo. Richards
 Vice-Presidents—Mrs. L. L. McCandless, Mrs. L. T. Peck.
 Recording Secretary
 TreasurerMrs. F. M. Swanzy
 Financial Secretary.....Mrs. R. Ivers
 AuditorW. L. Howard

ASSOCIATED CHARITIES.

Organized June 7, 1899.

PresidentS. B. Dole
 1st Vice-President
 2nd Vice-President.....Mrs. C. du Roi
 SecretaryMrs. J. M. Whitney
 TreasurerWm. Williamson
 ManagerMrs. E. W. Jordan

STRANGERS' FRIEND SOCIETY.

Organized 1852. Annual Meeting in June.

PresidentMrs. A. Fuller
 Vice-Presidents—Mrs. E. F. Bishop, Mrs. S. B. Dole.
 SecretaryMrs. S. M. Damon
 TreasurerMrs. E. W. Jordan
 AuditorE. W. Jordan

BRITISH BENEVOLENT SOCIETY.

Organized 1869. Meets Annually.

President (Ex-officio).....H. B. M's. Consul
 Vice-President
 SecretaryR. Catton
 TreasurerGeorge Davies
 Relief Committee—G. R. Ewart, J. C. Cook, W. H. Baird, F. Harrison, R. Anderson and H. E. McIntyre, with the above officers.

GERMAN BENEVOLENT SOCIETY.

Organized August 22, 1856.

PresidentF. A. Schaefer
 Vice-PresidentW. Pfotenbauer
 Secretary.....John F. Eckardt
 TreasurerB. von Damm
 AuditorW. Bluedorn

HAWAIIAN RELIEF SOCIETY.

Organized 1895.

PresidentMrs. C. S. Holloway

SecretaryMrs. E. S. Cunha
 TreasurerMrs. F. W. Macfarlane

HOOULU LAHUI SOCIETY.

Organized, 1878.

PresidentPrincess Kalaniana'ole
 Vice-PresidentJ. K. Kalaniana'ole
 SecretaryMrs. Manuel Reis
 TreasurerMrs. J. M. Dowsett

PORTUGUESE CHARITABLE SOCIETY.

Organized Sept. 1, 1902.

PresidentJ. P. Rodriguez
 Vice-PresidentJ. Madeira
 SecretaryA. H. R. Vieira
 TreasurerJ. D. Marques

RED CROSS SOCIETY.

Organized Sept. 2, 1907.

PresidentS. B. Dole
 1st Vice-President.....Mrs. B. F. Dillingham
 SecretaryMrs. W. W. Hall
 TreasurerC. H. Cooke
 AuditorJ. R. Galt

HOSPITAL FLOWER MISSION.

PresidentMrs. E. W. Jordan
 Vice-PresidentMrs. A. F. Judd
 SecretaryMrs. G. F. Davies
 TreasurerMrs. Allen Bottomley
 AuditorE. W. Jordan

OAHU CEMETERY ASSOCIATION.

PresidentA. S. Cleghorn
 Vice-PresidentF. J. Lowrey
 Secretary and Treasurer.....J. R. Cook

ANTI-SALOON LEAGUE OF HONOLULU, T. H.

Organized March 4, 1901.

PresidentRev. J. W. Wadman
 Vice-PresidentRev. W. D. Westervelt
 Vice-Pres. Honorary.....Mrs. J. M. Whitney
 SecretaryJ. A. Dickey
 TreasurerC. H. Dickey

PACIFIC (FORMERLY BRITISH) CLUB.

Organized 1852. Premises on Alakea Street, two doors below Beretania.

PresidentA. S. Cleghorn
 Vice-President.....D. P. R. Isenberg

Secretary Geo. C. Potter
 Treasurer A. W. T. Bottomley
 Governors—H. Focke, H. M. Whitney, G. F. Davies, Henry Holmes, R. Ivers, with the above officers, comprise the Board.

UNIVERSITY CLUB.

Organized 1905.

President Hon. S. M. Ballou
 Vice-President A. Gartley
 Secretary Walter G. Smith
 Treasurer D. W. Anderson
 Auditor A. J. Campbell

COMMERCIAL CLUB OF HONOLULU.

Organized Aug. 30, 1906.

President F. M. Wakefield
 Vice-President F. L. Waldron
 Secretary J. L. McLean
 Treasurer F. B. Damon

SCOTTISH THISTLE CLUB.

Organized April 27, 1891.

Chief J. M. Mackinnon
 Chieftain C. Edmonds
 Secretary John Macanlev
 Treasurer J. M. Macconel
 Master-at-Arms J. H. Catton
 Club Room, Oregon Building, Union Street.
 Meeting on Friday, 7:30 p. m.

BUCKEYE CLUB.

Organized 1904.

President S. B. Kingsbury
 Vice-President
 Sec. and Treas. C. E. Livingston

HONOLULU SYMPHONY SOCIETY.

President D. P. R. Isenberg
 Vice-President A. Folke
 Secretary G. J. Boisse
 Treasurer J. Lightfoot
 Mus. Director and Librarian R. Rudland Bode
 Directors O. R. Williams, Dr. O. E. Wall

YOUNG MEN'S RESEARCH CLUB.

Organized

President C. G. Owens
 Vice-President W. C. Parke
 Sec. and Treas. I. H. Beadle

HONOLULU CHESS CLUB.

Organized

President S. M. Ballou

Secretary and Treasurer A. A. Hobson
 Membership Committee—H. E. Cooper, J. Rosenstein, Alex. G. Hawes Jr.

COUNTRY CLUB.

Organized 1906.

President Geo. R. Carter
 1st Vice-President W. F. Dillingham
 2nd Vice-Pres. E. A. Mott-Smith
 Secretary H. C. Carter
 Treasurer J. O. Young
 Auditor S. Beardmore

HAWAII YACHT CLUB.

Organized Oct., 1901.

Commodore Alex. Lyle
 Vice-Commodore C. T. Wilder
 Secretary and Treasurer
 Measurer O. L. Sorenson
 Captain R. B. Rietow
 Regatta Com.—H. P. Roth, J. E. Jaeger, H. Rycroft.
 Directors—C. W. Macfarlane, Geo. Crozier, W. M. McInerny, H. E. Cooper.

MYRTLE BOAT CLUB.

Organized Feb. 5, 1883.

President T. V. King
 Vice-President W. C. Parke
 Secretary J. F. Soper
 Treasurer I. Spalding
 Captain F. Bechert
 Trustees—Gus. Bechert, C. Givin, W. A. Soper.

HEALANI YACHT AND BOAT CLUB.

Incorporated Dec., 1894.

President L. Petrie
 Vice-President Ben Clark
 Secretary E. K. Fernandez
 Treasurer S. Mahelena
 Captain R. Fuller
 Commodore Carl Oss
 Vice-Commodore Henry Rose
 Auditor James Crewes

OAHU COLLEGE.

President—Arthur F. Griffiths, A. B., History and Economics.
 Wilbur J. MacNeil—Chemistry and Natural Sciences.
 David L. Oleson—Mathematics.
 Catherine E. B. Cox—Greek and History.
 Levi Cassius Howland—Registrar, Commercial Department.
 Susan G. Clark—Latin and Greek.
 C. S. Schmutzler—German.
 C. W. Kitt—Commercial Department.

Ida M. Arthur—French.
 Edmund K. Arnold—Latin.
 Mary C. Alexander, Antoinette J. Foster—English.
 Charlotte P. Dodge—Science, Mathematics and History.
 Alice Rogers—Voice.
 Elinore Cowan—Oral Expression.
 Caroline Sheffield—Instructor in Piano.
 Margaret E. Clarke—Organ and Piano.
 D. Howard Hitchcock—Art Drawing.
 Mrs. A. B. Ingalls—Instructor on Violin.
 Mrs. E. Galbraith—Stenog. and Typewriter.
 Mary L. Bettis, Olive J. Bettis, Mrs. Maud Taylor—Matrons.
 Ernest J. Reece—Librarian.
 Doris E. Girdler—Assistant Librarian.
 Jona. Shaw—Business Manager.
 Frank Barwick—Supt. of Grounds.
 H. G. Wooten—Engineer.
 Isabelle McCorriston—Office Secretary.

PUNAHOU PREPARATORY.

Chas. T. Pitts—Principal.
 Margaret R. Austin—First Grade.
 Mary Persis Winne—Second Grade.
 Mrs. Elizabeth A. Turner—Third Grade.
 Florence N. Carter—Fourth Grade.
 Mary G. Borden—Fifth Grade.
 Anna F. Johnson—Sixth Grade.
 Isabel Gregg, Grace G. Howell—Seventh Grade.
 Ray M. Sheldon—Eighth Grade.
 Mrs. E. B. MacNeil, Miss Irene Fisher—Special.

COLLEGE OF HAWAII.

Faculty.

President—John W. Gilmore.
 Dept. of Agriculture—Prof. B. E. Porter.
 Horticulture and Botany—Prof. W. T. Pope.
 Engineering—Prof. J. M. Young.
 Chemistry and Physics—Prof. J. J. Morgan.
 Household Economics—Prof. Agnes Hunt.
 Ceramics and Drawing—Prof. M. E. Chipman.
 Language—English and German—Prof. Herman Babson.
 French—Mr. Marius Armadis.
 Mathematics—Prof. J. S. Donaghoo.
 Instructor in Agronomy and Botanical Laboratory—Mr. W. G. Ross.
 Instructor in Physics—Mr. R. G. Severence.

KAWAIAHAO GIRLS' SEMINARY.

Miss Mabel E. Boshier—Principal.
 Assistants—Misses Ethel A. Hamilton, Jesse S. McCormick, Ada Stephens.
 Teacher of Music—Miss Beatrice Harbaugh.
 Sewing—Mrs. Burt.
 Matron—Mrs. A. M. Vincent.
 General Assistant—Miss Esther Kalino.

THE KAMEHAMEHA SCHOOLS.

Officers of Administration.

Perley L. Horne—President.
 Uldrick Thompson—Vice-Principal.

John Lloyd Hopwood—Chaplain.
 Clifford B. Livingston—Registrar and Business Agent.
 E. C. Waterhouse, M. D.—Physician.
 Ida M. Pope—Principal Girls' School.
 Alice E. Knapp—Preparatory Department School for Boys.

FACULTIES.

School for Boys' Manual Department.

Perley L. Horne—President.
 Uldrick Thompson—Vice-Prin. and Science.
 David Kanuha—Tailoring.
 Ira Eskew—Carpentry.
 Albert Parsons—Agriculture.
 C. G. Livingston—Mathematics, Music.
 Jno. Lloyd Hopwood—History, Civics, Economics.
 Ross C. Ingram—Forging, Engineer.
 Minnie Reed—Geography, Reading.
 Clifford B. Thompson—Asst. in Agriculture.
 S. Livingston, C. E. Livingston, Miss Hickox, D. S. K. Pahu, W. A. Gill, Miss Armstrong, S. G. Bartlett, J. S. Sharp, N. G. Smith.
 Mrs. Alice M. Bradstreet—Matron.
 Paul Kuesthardt—Printing.

Preparatory Department.

Alice E. Knapp—Principal.
 Eugenia Thomas—Fifth and Sixth Grades.
 Sarah A. Smith—First and Second Grades.
 Maude Post—Third and Fourth Grades.
 Nevada Moore—Class Teacher.
 A. F. Perrott—Matron.
 Assistants—Miss Newson, Dora Todd, Margaret Anahu, Eliza Kahele.

School for Girls.

Ida M. Pope—Principal.
 Frances A. Lemmon—Geography, Arithmetic.
 S. Lillian Byington—Music.
 Misses McCracken, Baker, Reid.
 Catherine Bergner—Matron.
 Carrie Church—Domestic Art.
 Assistants—Misses Robertson, Macomber, Iokia, Williams, Irene Silva, Kaipo Senna, Ah Kue.

HONOLULU (STEAM) FIRE DEPARTMENT.

Originally organized 1851, and conducted as volunteers till March 1, 1893, when it was changed to a paid department.

Chief Engineer—Chas. Thurston.
 Asst. Engineer—Augustus Deering.
 Honolulu Engine No. 1—Location, Central Station, cor. Fort and Beretania streets.
 Mechanic Engine No. 2—Location, Central Station, cor. Fort and Beretania streets.
 Chemical Apparatus No. 3—Location, Central Station, cor. Fort and Beretania streets.
 Protection Hook and Ladder Co. No. 1—Location, Central Station, cor. Fort and Beretania streets.
 Engine Co. No. 4—Location, cor. Wilder avenue and Piikoi street.
 Engine Co. No. 5—Location, King street, near Reform School.

FIRE ALARM SIGNALS.

12. Cor. King and Fort.
13. Alakea and Beretania.
14. Bethel and Merchant.
15. Nuuanu and Queen.
16. Nuuanu and King.
17. Nuuanu and Hotel.
18. Nuuanu and Beretania.
21. Fort and Hotel.
23. Alakea and Hotel.
24. Alakea and Merchant.
25. Punchbowl and King.
26. Punchbowl and Queen.
27. South and Queen.
31. Fort and Queen.
32. Fort and Allen.
34. Allen and Kilauaea.
35. Alakea-Halekauwila.
36. Richards and Queen.
37. Punchbowl and Allen.
41. King and River.
42. Kekaulike and Hotel.
43. Smith and Pauahi.
45. Beretania and River.
46. Maunakea and King.
47. Railroad Wharf.
48. Iwilei Road, opp. Fertilizer Works.
49. Cannery, opp. Iwilei Road.
51. Iwilei Road, opp. Oahu Jail.
52. Beretania and King.
53. Liliha and King.
54. King and Dowsett Lane.
56. Insane Asylum Road and School St.
57. King Street, 200 feet Ewa of Pumping Station.
58. King and Kalihi Road.
59. Middle and Rose.
61. Vineyard and River.
62. Vineyard St. and Nuuanu Ave.
63. Vineyard and Fort.
64. Vineyard and Punchbowl.
65. Beretania and Punchbowl.
67. Alapai and Beretania.
71. Liliha and School.
72. Liliha and Judd.
73. Pauoa and Nuuanu Avenue.
74. Nuuanu and School.
75. Fort and School.
76. Emma and School.
78. Pauoa Road near Bridge.
81. Alapai and King.
82. Victoria and King.
83. Kapiolani and Beretania.
84. Kapiolani and Green.
85. Pensacola and Lunalilo.
86. Pensacola and Beretania.
87. Piikoi and King.
91. Thurston Ave. opp. Magazine.
92. Pensacola and Wilder Ave.
93. Lunalilo, opp. Kewalo.
94. Keeaumoku St. and Wilder Ave.
95. Kewalo and Heulu.
96. Makiki and Dominis.
97. College and Dominis.
123. Makiki and Lunalilo.
124. Keeaumoku and Kinau.
125. Keeaumoku and King.
126. Punahou, opp. Bingham.
127. Alexander and Beretania.
128. King and McCully.
129. King and Punahou.
132. Waikiki Road, opp. Sunny South.
134. Waikiki Road and Kalia Road.
135. Kalia Road opp. W. R. Castle Place.
136. Waikiki Road opp. Moana Hotel.
137. Waikiki Road opp. Race Track.

PRINCIPAL PUBLICATIONS.

- The Hawaiian Gazette, issued semi-weekly by the Hawaiian Gazette Co., Ltd., on Tuesdays and Fridays. Walter G. Smith, Editor.
- Sunday Advertiser, issued every Sunday morning by the Hawaiian Gazette Co., Ltd. Walter G. Smith, Editor.
- The Daily Pacific Commercial Advertiser, issued by the Hawaiian Gazette Co. every morning (except Sunday). Walter G. Smith, Editor.
- The Daily Bulletin, issued every evening (except Sundays), by the Bulletin Pub. Co. W. R. Farrington, Editor. Weekly editions issued on Tuesdays.
- The Hawaiian Star, issued every evening (except Sundays), by the Hawaiian Star Newspaper Association. Geo. F. Henshaw, Manager. Semi-Weekly issued on Mondays and Thursdays.
- The Guide, issued every Tuesday and Friday morning by the Guide Pub. Co.
- The Friend, Organ of the Hawaiian Board, issued on the first of each month. Rev. Doremus Scudder, Editor.
- The Hawaiian Church Chronicle, issued on the first Saturday of every month. Rt. Rev. H. B. Restarick, Editor.
- The Paradise of the Pacific, issued monthly. W. M. Langton, Editor and Publisher.
- The Planters' Monthly, issued on the 15th of each month. R. D. Mead, Editor.
- The Hawaiian Forester and Agriculturist, issued monthly under direction of Board of Com. Agr. and Forestry. L. G. Blackman, Editor.
- The Honolulu Times, issued monthly. Anna M. Prescott, Editor and Publisher.
- The Pacific Weekly, issued Saturdays. H. M. Ayers, Editor.
- The Kuokoa (native), weekly, issued every Friday morning by the Hawaiian Gazette Co., Ltd. Solomon Hanohano, Editor.
- Aloha Aina (native) issued every Saturday. Ed. Like, Editor.
- Kuokoa Home Rula (native), issued each Friday. Jos. M. Poepeo, Editor.
- O. Luso (Portuguese), issued weekly on Saturdays. J. S. Ramos, Editor.
- A Liberdade, Portuguese weekly, published on Thursdays. Editor.
- Sun Chung Kwock Bo, tri-weekly, Chinese.
- The Yamato Shimbun, Japanese daily.
- Hawaii Shinno, issued daily in Japanese.
- Hilo Tribune, issued weekly on Saturdays by the Tribune Pub. Co., Hilo. J. L. Kelly, Editor.
- The Hawaii Herald, issued weekly at Hilo on Thursdays by the Herald Pub. Co. C. R. Buckland, Editor.
- The Maui News, issued weekly at Wailuku, Maui. H. M. Coke, Editor.
- The Garden Island, issued weekly at Lihue, Kauai. O. Omsted, Editor.
- THE HAWAIIAN ANNUAL, issued the latter part of December for the following year. Thos. G. Thrum, Editor and Publisher.

HONOLULU LODGES, ETC.

- Oceanic Lodge No. 371, F. & A. M.; meets on the last Monday in each month in Masonic Hall.
- Hawaiian Lodge, No. 21, F. & A. M.; meets

- in its Hall, Masonic Temple, corner Hotel and Alakea streets, on the first Monday in each month.
- Honolulu Chapter, No. 1, R. A. M.; meets in Masonic Hall on the third Thursday of each month.
- Honolulu Commandery, No. 1, Knights Templar; meets in Masonic Hall on second Thursday of each month.
- Mystic Shrine, Aloha Temple. No stated time of meeting. Meets at Masonic Hall.
- Kamehameha Lodge of Perfection, No. 1, A. & A. S. R.; meets in Masonic Hall on the fourth Thursday of each month.
- Nuuanu Chapter of Rose Croix, No. 1, A. & A. S. R.; meets in Masonic Hall on the first Thursday in the month.
- Alexander Liholiho Council, No. 1, of Kadosh; meets on the third Monday of alternate months from February.
- Pacific Lodge, No. 822, A. F. & A. M.; meets at Masonic Hall every second Monday of the month.
- Leahi Chapter, No. 2, Order of the Eastern Star; meets on third Monday of each month in Masonic Hall.
- Lei Aloha Chapter, No. 3, Order of the Eastern Star; meets on second Saturday of each month in Masonic Temple.
- Excelsior Lodge, No. 1, I. O. O. F.; meets at the hall in Odd Fellows' Building, on Fort St., every Tuesday evening.
- Harmony Lodge, No. 2, I. O. O. F.; meets each Monday evening in Odd Fellows' Building, Fort street.
- Pacific Degree Lodge, No. 1, Daughters of Rebekah; meets in Odd Fellows' Building, Fort street, second and fourth Thursdays of each month.
- Olive Branch Rebekah, No. 2, I. O. O. F.; meets first and third Thursdays each month in Odd Fellows' Building.
- Polynesian Encampment, No. 1, I. O. O. F.; meets in Odd Fellows' Building, Fort street, first and third Fridays of each month.
- Canton Oahu, No. 1, P. M., I. O. O. F.; meets second Friday each month in Odd Fellows' Hall, Fort St.
- Oahu Lodge, No. 1, K. of P.; meets every Thursday evening at Pythian Hall, cor. Beretania and Fort streets.
- Mystic Lodge, No. 2, K. of P.; meets every Wednesday evening at Pythian Hall, cor. Beretania and Fort streets.
- Section N. 225—Endowment Rank, K. of P.; meets on the second Saturday of January, July and December in Pythian Hall.
- Honolulu Temple, No. 1, Rathbone Sisters; meets in Pythian Hall, first and third Monday evenings of each month.
- Wm. McKinley Lodge, No. 8, K. of P.; meets every Saturday evening in Pythian Hall.
- Hawaiian Council, No. 689, American Legion of Honor; meets on second and fourth Friday evening of each month in Harmony Hall.
- Oceanic Council, No. 777, American Legion of Honor, meets on the first and third Tuesdays of each month.
- Hawaiian Tribe, No. 1, Improved Order of Red Men; meets on first and third Thursdays of each month at K. of P. Hall.
- Court Lunalilo, No. 6600, A. O. of Foresters; meets at K. of P. Hall on first and third Fridays of each month.
- Court Camoes No. 8110, A. O. F.; meets second and fourth Tuesday evening of month in San Antonio Hall.
- Geo. W. de Long Post, No. 45, G. A. R.; meets the second Tuesday of each month at Odd Fellows' Building, Fort street.
- Theo. Roosevelt Camp, No. 1, Dept. of Hawaii U. S. W. V.; second and fourth Saturdays, Waverly Hall, Bethel street.
- Geo. C. Wiltse Camp, Sons of Veterans; meets on third Tuesday of each month in San Antonio Hall.
- Capt. Cook Lodge, No. 353, Order Sons of St. George; meets at Harmony Hall every Monday evening.
- Court Hawaii, No. 3769, Independent Order of Foresters, meets third Monday of each month.
- Damien Council, Young Men's Institute; meets second and fourth Wednesdays of each month at Catholic Mission Hall.
- Honolulu Lodge, B. P. O. Elks, 616; meets every Friday evening in the Elks' Building, King street near Fort.
- Honolulu Aerie, No. 140, Fraternal Order of Eagles, meets fourth Wednesday each month in Pythian Hall.
- American Association of Masters and Pilots of Steam Vessels, Honolulu Harbor, No. 34; meets first and third Sundays of each month at 7 p. m. in Odd Fellows' Hall.
- Marine Engineers' Beneficial Association, No. 100; meets every second and fourth Monday nights at K. of P. Hall.
- Kamehameha Lodge (native); meets last Thursday of each month in Odd Fellows' Hall.
- Kauaikeauli Lodge, No. 1 (native); meets on first and third Fridays each month in St. Antonio Hall.

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- Palama Chapel, J. A. Rath, Superintendent. Sunday school at 9:30 a. m. Gospel services at 7:30 p. m.
- Methodist Episcopal Church, corner Beretania and Miller streets. Rev. Dr. Cornwell, pastor. Sunday services at 11 a. m. and 7:30 p. m. Sunday school meets at 10 a. m. Prayer meeting Wednesdays at 7:30 p. m.
- The Christian Church, A. C. McKeever, pastor. Rev. Chas. C. Wilson in charge of Mission work. Sunday services at 11 a. m. and 7:30 p. m. at their house of worship, Alakea street, near King. Sunday school meets at 9:45 a. m.
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- Chinese Congregation. Rev. Kong Yim Tet, Curate. Services on Sunday at 11 a. m. and 7:30 p. m. Evening prayer every Wednesday at 7 p. m.
- St. Clement's Chapel, Punahou. Services on Sundays. Holy Communion, 7 a. m. Morning prayer, 11 a. m.; evening prayer, 7:30 p. m. Rev. John Usborne, rector.
- Christian Chinese Church, Fort street; Rev. E. W. Thwing, acting pastor. Services every Sunday at 10:30 a. m. and 7:30 p. m. Prayer meeting Wednesdays at 7:30 p. m.
- German Lutheran Church, Beretania St.; Rev. W. Felmy, pastor. Services on Sunday at 11 a. m.; Sunday school at 10 a. m.
- Portuguese (Protestant) Mission; Rev. A. V. Soares, pastor. Services every Sabbath at the usual hour. Sunday school at 3 p. m. Chapel situated corner of Punchbowl and Miller streets.
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- Japanese Union Church (connected with Hawaiian Board Missions); Rev. Shimamori, pastor. Hold services at the Lyceum at 10 a. m. Preaching at 11 a. m. and 7:30 p. m. Sunday services. Prayer and praise meeting Wednesdays at 7 p. m.
- Japanese Methodist Church, Rev. pastor. Hold services in chapel on River street, near St. Louis College.
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- Bishop Memorial Chapel, Kamehameha Schools, Rev. J. L. Hopwood, Chaplain. Morning services at 11.

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INDEX.

	PAGE		PAGE
Agencies Sugar Plantations.....	183	— — — Molokai	15
Annual Internal Taxes.....	30	Eclipses for 1908.....	6
—License Fees	34	Elevations, Principal Localities, Table of	15
—Sugar Exports from 1875, Quantity and Value.....	27	Estimated Japanese Population, 1908	37
Another Alii Gone.....	97	Excursion to the Mountains of Maui	92
Area, Elevation and Population of Hawaiian Islands.....	16	Expenditures, Receipts and Pub- lic Debt, 1856 to 1908.....	29
Arrivals and Departures of Aliens, 1908.....	37	Exports—See Customs Statistics.	
Bonded Debt, Territory of Ha- waii	29	Federal Officials	211
Calendar, Counting House.....	2	Growth of Greatness, The.....	144
—Quarterly	7	Hawaiian Annual Trade Balance.	28
Capacity (Seating) Principal Honolulu Halls, Churches, etc.	34	—Folk Tales	184
Census, Comparative Table, 1853-1900	19	—Sugar Crops, 1903-08.....	185
—Foreign and Native Born Population of Hawaii.....	19	— — — Plantation Statistics.	27
—Latest Returns by Islands...	18	Hawaii's Commerce with For- eign Countries, Import and Export Values	25
—Population Hawn. Islands, 1872-1900	18	Heiaus and Heiau Sites, Hawn. Islands	38
—Population of Honolulu....	18	Holidays Observed in Hawn. Is.	6
Chapter of Firstlings, A.....	128	Honolulu and Suburbs in Early Forties	118
Church Days and Holidays.....	6	Imports—See Customs Statistics.	
Clipper passages to and from the Coast	35	Internal Taxes	30
Coast Line Distances, Hawn. Is.	26	Journal of Stephen Reynolds....	153
Comparative Imports from Japan, 1902-06	26	Kilauea in September, 1908.....	140
County Officials	210	Latest Census Table	18
Customs Statistics, 1908— Exports and Imports.....	25	Legend of Paalua and Kawelu.	98
Commerce with Foreign Coun- tries, 1907-08.....	25	McKinley High School, The.....	159
Import Values from U. S.....	22	Meteorological Observations, Honolulu, 1907-08.....	31
Shipments to U. S., Domestic, 1907-08	24	Notable Trips Pac. Ocean Stmr.	35
Quantity and Value Domestic Produce to the U. S., 1908..	26	Notable Visitors during 1908....	147
Customs Table Review, 1908...	54	Noted Inter-Island Trips, Some.	37
Debt, Bonded, Territory of Ha- waii, 1908	29	Ocean and Channel Distances..	11
Dimensions Haleakala, Iao Val- ley	17	Overland Distances, Hawaii and Maui	13
—Kilauea, Mokuaweoweo	17	Overland Distances, Kauai and Oahu	12
Distances, Channel and Ocean..	11	Overland Distances, Molokai....	15
—Overland, Hawaii, Maui....	13	Plantations, Mills and Agencies, List of	183
— — — Kauai, Oahu.....	12		

	PAGE		PAGE
Pineapple Industry in Hawaii....	56	Public Improvements	164
Population Hawn. Islands, 1853-1900	19	Rapid Transit Mishap.....	176
—Nationality of, 1872-1900..	18	Real Estate Matters.....	179
—of Honolulu, 1900.....	21	Rubber Experimentation	167
Postal Service, Territory of Hawaii	187	Smart Passages	179
Printing Press of the Mission... 106		Steamer Mauna Kea	172
Public Debt, etc., Terr. Hawaii.. 29		Transpacific Race, The.....	173
Rainfall, Principal Stations Hawaiian Islands, 1907-08.....	32	Reunion of Bethelites.....	116
Receipts, Expenditures and Public Debt of Hawaii, 1856-1908.	29	Reviving Interest in Cotton Growing	149
Record Trips between Hawaiian and Distant Ports.....	36	Seating Capacity Principal Honolulu Churches, Halls, etc....	34
Reference List Principal Articles in Earlier Annuals.....	189	School Statistics, Territory of Hawaii	20
Register and Directory, County Officials	210	Standard and Local Time.....	17
Register and Directory, Federal Officials	211	Statistics—See also Census and Customs Tables.	
Register and Directory Territorial Officials	198	—Births and Deaths by Nationalities, etc.....	21
Reprinting Dibble's History.....	162	—Church.....	21
Retrospect for 1908.....	163	—Hawn. Sugar Plantation, from 1875	27
Building Matters	180	—Vital, 1905-08	21
Business Changes	175	Streets of Honolulu in the Early Forties	83
Diversified Industries	166	Sugar Plantations, Mills, etc., List of	183
Due Appreciation	178	Summary of Insurance Business, Hawaii, 1907	28
Earthquake Shocks	172	Table of Annual License Fees..	34
Fires	176	Tales from the Temples.....	48
Floral Parade	179	Table of Elevations Principal Localities	15
Investigations	174	—Meteorological, 1907-08.....	31
Labor Matters	170	—Rainfall Principal Localities, 1907-08.....	32
Marine Casualties	177	Taxes, Annual, Biennial.....	30
Miscellaneous	181	Territorial Officials	198
Necrology	182	Value of Shipments to the U. S. from Hawaii, 1907, 1908.....	24
New Introductions	168	Visitor's Impressions of Hawaii, A	146
Official Changes	175	Vital Statistics, 1908, by Islands.	21
Our Island Yacht, Hawaii....	172	Width of Channels	11
Our Naval Visitors.....	170		
Out Door Sports.....	173		
Plantation Changes	169		
Pineapple Growers Organize... 168			
Political Campaign, The.....	164		
Prominent Shipments	181		

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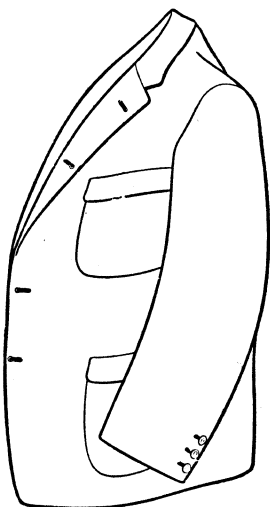
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